Introduction to Financial Markets

NSQF LEVEL-II

STUDENT HANDBOOK (Class X)

CENTRAL BOARD OF SECONDARY EDUCATION

Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi-110301

BUILDING SKILLS•BUILDING FUTURE•

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Student Handbook, Class X

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भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण [1]प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य बनाने के लिए, तथा उसके समस्त नागरिकों को:

सामाजिक, आर्थिक और राजनैतिक न्याय,
विचार, अभिव्यक्ति, विश्वास, धर्म
और उपासना की स्वतंत्रता,
प्रतिष्ठा और अवसर की समता
प्राप्त कराने के लिए
तथा उन सब में व्यक्ति की गरिमा
[2]और राष्ट्र की एकता और अखंडता
सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई॰ को एतद्द्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

---

1. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित।
2. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित।

भाग 4 क

मूल कर्त्तव्य

51 क. मूल कर्त्तव्य – भारत के प्रत्येक नागरिक का यह कर्त्तव्य होगा कि वह –

(क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;

(ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;

(ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;

(घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;

(ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;

(च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;

(छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणी मात्र के प्रति दयाभाव रखे;

(ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;

(झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;

(ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले;

[1](ट) यदि माता-पिता या संरक्षक है, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करे।

---

1. संविधान (छयासीवां संशोधन) अधिनियम, 2002 की धारा 4 द्वारा प्रतिस्थापित।

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a [1]**SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the[2] unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

---

1. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "unity of the Nation" (w.e.f. 3.1.1977)

THE CONSTITUTION OF INDIA

Chapter IV A

FUNDAMENTAL DUTIES

ARTICLE 51A

Fundamental Duties - It shall be the duty of every citizen of India-

(a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;

(b) to cherish and follow the noble ideals which inspired our national struggle for freedom;

(c) to uphold and protect the sovereignty, unity and integrity of India;

(d) to defend the country and render national service when called upon to do so;

(e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;

(f) to value and preserve the rich heritage of our composite culture;

(g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;

(h) to develop the scientific temper, humanism and the spirit of inquiry and reform;

(i) to safeguard public property and to abjure violence;

(j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;

[1](k) to provide opportunities for education to his/her child or, as the case may be, ward between age of 6 and 14 years.

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1. Subs. by the Constitution (Eighty - Sixth Amendment) Act, 2002

PREFACE

Ministry of Human Resource Development, Govt. of India is laying great emphasis on skill and competency development. Accordingly, in future all employment will be related to acquiring qualifications as per National Skill Qualification Framework **(NSQF).** This is going to be a major game changer. The NSQF will enable students in skill and competency development, provide for vertical as well as horizontal mobility besides multiple entries and exits.

There is an acute shortage of trained professionals in BFSI (Banking, Financial Services, and Insurance) industry. The National Skill Development Corporation (NSDC) has identified BFSI as one of the 21 growth sector to develop skills. NSE who is also the co-promoter of BFSI sector council and is responsible for development of competency and skills in BFSI.

In view of the above, Board has introduced FMM from class IX onwards in collaboration with National Stock Exchange (NSE) from academic session 2015-16 onwards.

Students can study FMM course at 10+2 level. Students can also pursue further studies as more than 16 universities are already offering BBA, MBA in Financial Markets, who have collaborated with NSE.

The present book "Introduction to Financial Markets" for level 2 (Class-X) broadly cover investment basics, securities, primary market, secondary market, derivatives, depository, mutual funds, concepts and mode of analysis, ratio analysis etc.

The Board takes this opportunity to thankfully acknowledge the commendable work of NSE in providing content support to CBSE for successfully launching and implementing FMM course under NSQF. NSE Learn to Trade (NLT) software for skill development for students will help them to develop real life market skills. The team at CBSE Vocational Education cell also deserve appreciation for their contribution.

Comments and suggestions are welcome for further improvement of the Book.

Chairman, CBSE

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Unit Code: 1	Unit Title: Investment Basics			
	Session-1 : Saving Vs Investment			
Location: Class Room, FMM Lab, Stock Exchange	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Causes of Investment Tools of Investment Needs of Investment	Calculation of Investment Instruments	Formulate Investment Tool	**Interactive lecture:** Situation to Calculation of the Investment **Activity:** Calculate Bank and Post Office Deposits.
	Session-2 : Stock Exchange			
	Define Stock Exchange Identify National Stock Exchanges	Tools to Invest in Stock Exchange	Evaluate each Equity, Debt Derivative, Mutual Fund	**Interactive lecture:** Risk and Return of Stock Market Investment **Activity:** Collection Market Return Charts and Sheets, Discuss
	Session-3 : Electronic Shares			
	Find the Depositories of the Country.	Process of Dematerialization	Fungibility to convert the share from electronic to physical form	**Interactive lecture:** Discussing the advantage of Demat Securities. **Activity:** Fill DRF (Demand Request Form)

Chapter 1

INVESTMENT BASICS

What is Investment?

The money you earn is partly spent and the rest saved for meeting future expenses. Instead of keeping the savings idle you may like to use savings in order to get return on it in the future. This is called Investment.

Why should one invest?

One needs to invest to:

- earn return on your idle resources
- generate a specified sum of money for a specific goal in life
- make a provision for an uncertain future

One of the important reasons why one needs to invest wisely is to meet the cost of *Inflation.* Inflation is the rate at which the cost of living increases. The cost of living is simply what it costs to buy the goods and services you need to live. Inflation causes money to lose value because it will not buy the same amount of a good or a service in the future as it does now or did in the past. For example, if there was a 6% inflation rate for the next 20 years, a Rs. 100 purchase today would cost Rs. 321 in 20 years. This is why it is important to consider inflation as a factor in any long-term investment strategy. Remember to look at an investment's 'real' rate of return, which is the return after inflation. The aim of investments should be to provide a return above the inflation rate to ensure that the investment does not decrease in value. For example, if the annual inflation rate is 6%, then the investment will need to earn more than 6% to ensure it increases in value. If the after-tax return on your investment is less than the inflation rate, then your assets have actually decreased in value; that is, they won't buy as much today as they did last year.

When to start Investing?

The sooner one starts investing the better. By investing early you allow your investments more time to grow, whereby the concept of compounding (as we shall see later) increases your income, by accumulating the principal and the interest or dividend earned on it, year after year. The three golden rules for all investors are:

- Invest early
- Invest regularly
- Invest for long term and not short term

What care should one take while investing?

Before making any investment, one must ensure to:

1. obtain written documents explaining the investment
2. read and understand such documents
3. verify the legitimacy of the investment

4. find out the costs and benefits associated with the investment
5. assess the risk-return profile of the investment
6. know the liquidity and safety aspects of the investment
7. ascertain if it is appropriate for your specific goals
8. compare these details with other investment opportunities available
9. examine if it fits in with other investments you are considering or you have already made
10. deal only through an authorised intermediary
11. seek all clarifications about the intermediary and the investment
12. explore the options available to you if something were to go wrong, and then, if satisfied, make the investment.

These are called the *Twelve Important Steps to Investing.*

What is meant by Interest?

When we borrow money, we are expected to pay for using it - this is known as Interest. Interest is an amount charged to the borrower for the privilege of using the lender's money. Interest is usually calculated as a percentage of the principal balance (the amount of money borrowed). The percentage rate may be fixed for the life of the loan, or it may be variable, depending on the terms of the loan.

What factors determine interest rates?

When we talk of interest rates, there are different types of interest rates -rates that banks offer to their depositors, rates that they lend to their borrowers, the rate at which the Government borrows in the Bond/Government Securities market, rates offered to investors in small savings schemes like NSC, PPF, rates at which companies issue fixed deposits etc.

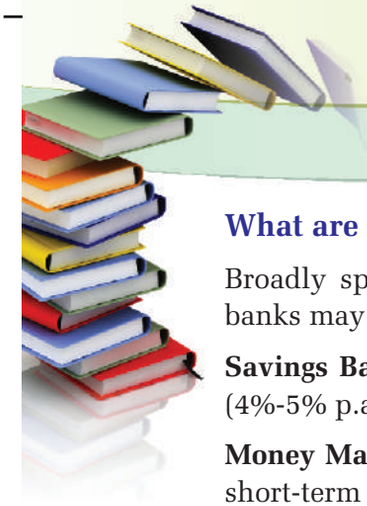
The factors which govern these interest rates are mostly economy related and are commonly referred to as macroeconomic factors. Some of these factors are:

- Demand for money
- Level of Government borrowings
- Supply of money
- Inflation rate
- The Reserve Bank of India and the Government policies which determine some of the variables mentioned above

What are various options available for investment?

One may invest in:

- **Physical assets** like real estate, gold/jewellery, commodities etc. and/or
- **Financial assets** such as fixed deposits with banks, small saving instruments with post offices, insurance/provident/pension fund etc. or securities market related instruments like shares, bonds, debentures etc.



What are various short-term financial options available for investment?

Broadly speaking, savings bank account, money market/liquid funds and fixed deposits with banks may be considered as short-term financial investment options:

Savings Bank Account is often the first banking product people use, which offers low interest (4%-5% p.a.), making them only marginally better than fixed deposits.

Money Market or Liquid Funds are a specialized form of mutual funds that invest in extremely short-term fixed income instruments and thereby provide easy liquidity. Unlike most mutual funds, money market funds are primarily oriented towards protecting your capital and then, aim to maximise returns. Money market funds usually yield better returns than savings accounts, but lower than bank fixed deposits.

Fixed Deposits with Banks are also referred to as term deposits and minimum investment period for bank FDs is 30 days. Fixed Deposits with banks are for investors with low risk appetite, and may be considered for 6-12 months investment period as normally interest on less than 6 months bank FDs is likely to be lower than money market fund returns.

What are various long-term financial options available for investment?

Post Office Savings Schemes, Public Provident Fund, Company Fixed Deposits, Bonds and Debentures, Mutual Funds etc.

Post Office Savings: Post Office Monthly Income Scheme is a low risk saving instrument, which can be availed through any post office. It provides an interest rate of 8% per annum, which is paid monthly. Minimum amount, which can be invested, is Rs. 1,000/- and additional investment in multiples of 1,000/-. Maximum amount is Rs. 3,00,000/- (if Single) or Rs. 6,00,000/- (if held Jointly) during a year. It has a maturity period of 6 years. A bonus of 10% is paid at the time of maturity. Premature withdrawal is permitted if deposit is more than one year old. A deduction of 5% is levied from the principal amount if withdrawn prematurely; the 10% bonus is also denied.

Public Provident Fund: A long term savings instrument with a maturity of 15 years and interest payable at 8% per annum compounded annually. A PPF account can be opened through a nationalized bank at anytime during the year and is open all through the year for depositing money. Tax benefits can be availed for the amount invested and interest accrued is tax-free. A withdrawal is permissible every year from the seventh financial year of the date of opening of the account and the amount of withdrawal will be limited to 50% of the balance at credit at the end of the 4th year immediately preceding the year in which the amount is withdrawn or at the end of the preceding year whichever is lower the amount of loan if any.

Company Fixed Deposits: These are short-term (six months) to medium-term (three to five years) borrowings by companies at a fixed rate of interest which is payable monthly, quarterly, semi-annually or annually. They can also be cumulative fixed deposits where the entire principal alongwith the interest is paid at the end of the loan period. The rate of interest varies between 6-9% per annum for company FDs. The interest received is after deduction of taxes.

Bonds: It is a fixed income (debt) instrument issued for a period of more than one year with the purpose of raising capital. The central or state government, corporations and similar institutions sell bonds. A bond is generally a promise to repay the principal along with a fixed rate of interest on a specified date, called *the Maturity Date.*

Mutual Funds: These are funds operated by an investment company which raises money from the public and invests in a group of assets (shares, debentures etc.), in accordance with a stated set of objectives. It is a substitute for those who are unable to invest directly in equities or debt because of resource, time or knowledge constraints. Benefits include professional money management, buying in small amounts and diversification. Mutual fund units are issued and redeemed by the *Fund Management Company* based on the fund's net asset value (NAV), which is determined at the end of each trading session. NAV is calculated as the value of all the shares held by the fund, minus expenses, divided by the number of units issued. Mutual Funds are usually long term investment vehicle though there some categories of mutual funds, such as money market mutual funds which are short term instruments.

What is meant by a Stock Exchange?

The Securities Contract (Regulation) Act, 1956 [SCRA] defines 'Stock Exchange' as any body of individuals, whether incorporated or not, constituted for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities. Stock exchange could be a regional stock exchange whose area of operation/jurisdiction is specified at the time of its recognition or national exchanges, which are permitted to have nationwide trading since inception. NSE was incorporated as a National Stock Exchange.

What is an 'Equity'/Share?

Total equity capital of a company is divided into equal units of small denominations, each called a share. For example, in a company the total equity capital of Rs 300,00,000 is divided into 20,00,000 units of Rs 10 each. Each such unit of Rs 10 is called a Share. Thus, the company then is said to have 20,00,000 equity shares of Rs 10 each. The holders of such shares are members of the company and have voting rights.

What is a 'Debt Instrument'?

Debt instrument represents a contract whereby one party lends money to another on pre-determined terms with regards to rate and periodicity of interest, repayment of principal amount by the borrower to the lender.

In the Indian securities markets, the term *bond'* is used for debt instruments issued by the Central and State governments and public sector organizations and the term *debenture'* is used for instruments issued by private corporate sector.

What is a Derivative?

Derivative is a product whose value is derived from the value of one or more basic variables, called underlying. The underlying asset can be equity, index, foreign exchange (forex), commodity or any other asset.

Derivative products initially emerged as hedging devices against fluctuations in commodity prices and commodity-linked derivatives remained the sole form of such products for almost three hundred years. The financial derivatives came into spotlight in post-1970 period due to growing instability in the financial markets. However, since their emergence, these products have become very popular and by 1990s, they accounted for about two-thirds of total transactions in derivative products.

What is a Mutual Fund?

A Mutual Fund is a body corporate registered with SEBI (Securities Exchange Board of India) that pools money from individuals/corporate investors and invests the same in a variety of different financial instruments or securities such as equity shares, Government securities, Bonds, debentures etc. Mutual funds can thus be considered as financial intermediaries in the investment business that collect funds from the public and invest on behalf of the investors. Mutual funds issue units to the investors. The appreciation of the portfolio or securities in which the mutual fund has invested the money leads to an appreciation in the value of the units held by investors. The investment objectives outlined by a Mutual fund in its prospectus are binding on the Mutual Fund scheme. The investment objectives specify the class of securities a Mutual Fund can invest in. Mutual Funds invest in various asset classes like equity, bonds, debentures, commercial paper and government securities. The schemes offered by mutual funds vary from fund to fund. Some are pure equity schemes; others are a mix of equity and bonds. Investors are also given the option of getting dividends, which are declared periodically by the mutual fund, or to participate only in the capital appreciation of the scheme.

What is an Index?

An Index shows how a specified portfolio of share prices are moving in order to give an indication of market trends. It is a basket of securities and the average price movement of the basket of securities indicates the index movement, whether upwards or downwards.

What is a Depository?

A depository is like a bank wherein the deposits are securities (viz. shares, debentures, bonds, government securities, units etc.) in electronic form.

What is Dematerialization?

Dematerialization is the process by which physical certificates of an investor are converted to an equivalent number of securities in electronic form and credited to the investor's account with his *Depository Participant* (DP).

Unit Code: 2	Unit Title: Securities			
	Session-1 : Securities Market			
Location: Class Room, Business Channels, FMM Lab	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Who can invest Insecurities Market? Securities Platform	Trading Techniques Basics	Steps to Trade Market Behaviour	**Interactive lecture:** Brief about Market Operations, Show Business Channels. **Activity:** Live Trading/Watch Business Channels
	Session-2 : Regulators			
	Need of Regulators Role of SEBI	Describe all Market Regulators	Draw Regulatory	**Interactive lecture:** Scam in the Securities Market **Activity:** Role Play of SEBI Representative
	Session-3 : Market Participants			
	Participant Registration Transaction through Participants	Name all the Market Participants	Role, Code of conduct for the Market Participants	**Interactive lecture:** How to become Participants. **Activity:** Role Play.

Chapter 2

SECURITIES

What is meant by 'Securities'?

The definition of 'Securities' as per the Securities Contracts Regulation Act (SCRA), 1956, includes instruments such as shares, bonds, scrips, stocks or other marketable securities of similar nature in or of any incorporate company or body corporate, government securities, derivatives of securities, units of collective investment scheme, interest and rights in securities, security receipt or any other instruments so declared by the Central Government.

What is the function of Securities Market?

Securities Markets is a place where buyers and sellers of securities can enter into transactions to purchase and sell shares, bonds, debentures etc. Further, it performs an important role of enabling corporates, entrepreneurs to raise resources for their companies and business ventures through public issues. Transfer of resources from those having idle resources (investors) to others who have a need for them (corporates) is most efficiently achieved through the securities market. Stated formally, securities markets provide channels for reallocation of savings to investments and entrepreneurship. Savings are linked to investments by a variety of intermediaries, through a range of financial products, called 'Securities'.

Which are the securities one can invest in?

- Shares
- Government Securities
- Derivative products
- Units of Mutual Funds etc., are some of the securities investors in the securities market can invest in.

2.1 Regulator

Why does Securities Market need Regulators?

The absence of conditions of perfect competition in the securities market makes the role of the Regulator extremely important. The regulator ensures that the market participants behave in a desired manner so that securities market continues to be a major source of finance for corporate and government and the interest of investors are protected.

Who regulates the Securities Market?

The responsibility for regulating the securities market is shared by Department of Economic Affairs (DEA), Department of Company Affairs (DCA), Reserve Bank of India (RBI) and Securities and Exchange Board of India (SEBI).

What is SEBI and what is its role?

The Securities and Exchange Board of India (SEBI) is the regulatory authority in India established under Section 3 of SEBI Act, 1992. SEBI Act, 1992 provides for establishment of

Securities and Exchange Board of India (SEBI) with statutory powers for (a) protecting the interests of investors in securities (b) promoting the development of the securities market and (c) regulating the securities market. Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all intermediaries and persons associated with securities market. SEBI has been obligated to perform the aforesaid functions by such measures as it thinks fit. In particular, it has powers for:

- Regulating the business in stock exchanges and any other securities markets
- Registering and regulating the working of stock brokers, sub-brokers etc.
- Promoting and regulating self-regulatory organizations
- Prohibiting fraudulent and unfair trade practices
- Calling for information from, undertaking inspection, conducting inquiries and audits of the stock exchanges, intermediaries, self-regulatory organizations, mutual funds and other persons associated with the securities market.

2.2 Participants

Who are the participants in the Securities Market?

The securities market essentially has three categories of participants, namely, the issuers of securities, investors in securities and the intermediaries, such as merchant bankers, brokers etc. While the corporates and government raise resources from the securities market to meet their obligations, it is households that invest their savings in the securities market.

Is it necessary to transact through an intermediary?

It is advisable to conduct transactions through an intermediary. For example you need to transact through a trading member of a stock exchange if you intend to buy or sell any security on stock exchanges. You need to maintain an account with a depository if you intend to hold securities in demat form. You need to deposit money with a banker to an issue if you are subscribing to public issues. You get guidance if you are transacting through an intermediary. Chose a SEBI registered intermediary, as he is accountable for its activities. The list of registered intermediaries is available with exchanges, industry associations etc.

What are the segments of Securities Market?

The securities market has two interdependent segments: the primary (new issues) market and the secondary market. The primary market provides the channel for sale of new securities while the secondary market deals in securities previously issued.

Unit Code: 3	Unit Title: Primary Market			
	Session-1 : New Issue Market			
Location: Class Room, Stock Exchange, FMM Lab,	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Who can bring new issue. Role of Primary Market	Different rates to bring new issue (Face value, premium, discount)	Causes to bring issue on Face Value and Premium and Discount respectively.	**Interactive lecture:** Discuss IPO Form. **Activity:** Visit in Stock Exchange to collect Reports and IPO Forms.
	Session-2 : Issue of Shares			
	Need for issue Market Capitalization Public Vs Private Placement	Pricing of new issue Subscription	Parties involved in new issues	**Interactive lecture:** Procedure Discussion **Activity:** Learn how to fill IPO
	Session-3 : Saturated Prospectus			
	Draft offer documents Listing agreement SEBI role	Abridged Prospectus Red-Herring Prospectus	Distinguish between Abridged Prospectus and Red Herring Prospectus	**Interactive lecture:** Highlights of Prospectus **Activity:** Bring prospectus from the Stock Exchange

Chapter 3

PRIMARY MARKET

What is the role of the 'Primary Market'?

The primary market provides the channel for sale of new securities. Primary market provides opportunity to issuers of securities; Government as well as corporates, to raise resources to meet their requirements of investment and/or discharge some obligation.

They may issue the securities at face value, or at a discount/premium and these securities may take a variety of forms such as equity, debt etc. They may issue the securities in domestic market and/or international market.

What is meant by Face Value of a share/debenture?

The nominal or stated amount (in Rs.) assigned to a security by the issuer. For shares, it is the original cost of the stock shown on the certificate; for bonds, it is the amount paid to the holder at maturity. Also known as par value or simply par. For an equity share, the face value is usually a very small amount (Rs.5, Rs.10) and does not have much bearing on the price of the share, which may quote higher in the market, at Rs.100 or Rs.1000 or any other price. For a debt security, face value is the amount repaid to the investor when the bond matures (usually, Government securities and corporate bonds have a face value of Rs.100). The price at which the security trades depends on the fluctuations in the interest rates in the economy.

What do you mean by the term Premium and Discount in a Security Market?

Securities are generally issued in denominations of 5, 10 or 100. This is known as the Face Value or Par Value of the security as discussed earlier. When a security is sold above its face value, it is said to be issued at a Premium and if it is sold at less than its face value, then it is said to be issued at a Discount.

3.1 Issue of Shares

Why do companies need to issue shares to the public?

Most companies are usually started privately by their promoter(s). However, the promoters' capital and the borrowings from banks and financial institutions may not be sufficient for setting up or running the business over a long term. So companies invite the public to contribute towards the equity and issue shares to individual investors. The way to invite share capital from the public is through a *'Public Issue'*. Simply stated, a public issue is an offer to the public to subscribe to the share capital of a company. Once this is done, the company allots shares to the applicants as per the prescribed rules and regulations laid down by SEBI.

What are the different kinds of issues?

Primarily, issues can be classified as a Public, Rights or Preferential issues (also known as private placements). While public and rights issues involve a detailed procedure, private placements or preferential issues are relatively simpler. The classification of issues is illustrated below:

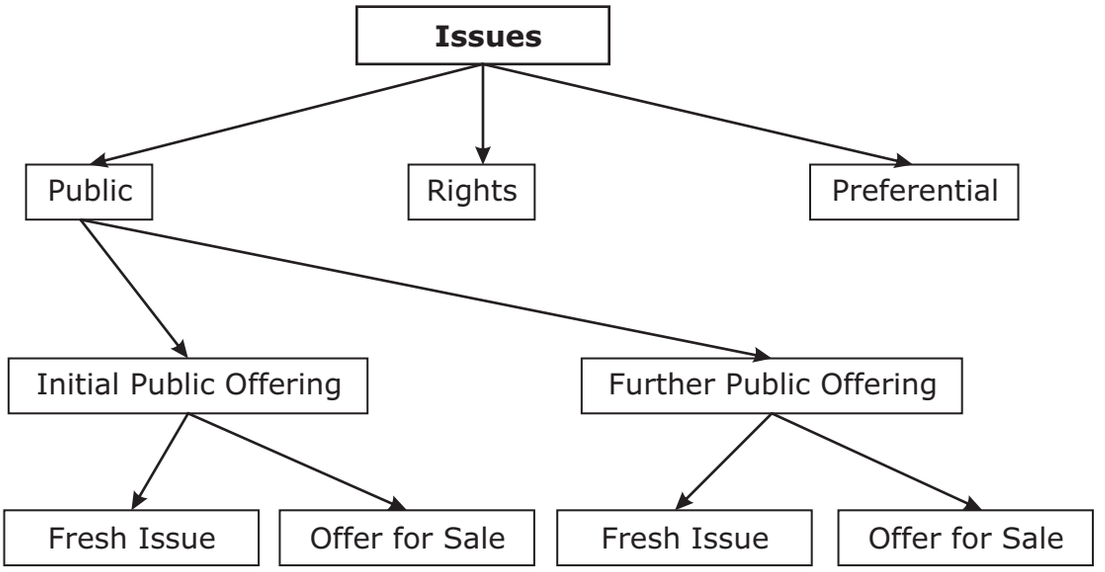
Initial Public Offering (IPO) is when an unlisted company makes either a fresh issue of securities or an offer for sale of its existing securities or both for the first time to the public. This paves way for listing and trading of the issuer's securities.

A follow on public offering (Further Issue) is when an already listed company makes either a fresh issue of securities to the public or an offer for sale to the public, through an offer document.

Rights Issue is when a listed company which proposes to issue fresh securities to its existing shareholders as on a record date. The rights are normally offered in a particular ratio to the number of securities held prior to the issue. This route is best suited for companies who would like to raise capital without diluting stake of its existing shareholders.

A Preferential issue is an issue of shares or of convertible securities by listed companies to a select group of persons under Section 81 of the Companies Act, 1956 which is neither a rights issue nor a public issue. This is a faster way for a company to raise equity capital. The issuer company has to comply with the Companies Act and the requirements contained in the Chapter pertaining to preferential allotment in SEBI guidelines which inter-alia include pricing, disclosures in notice etc.

Classification of Issues



What is meant by Issue price?

The price at which a company's shares are offered initially in the primary market is called as the Issue price. When they begin to be traded, the market price may be above or below the issue price.

What is meant by Market Capitalisation?

The market value of a quoted company, which is calculated by multiplying its current share price (market price) by the number of shares in issue is called as market capitalization. E.g.

Company A has 120 million shares in issue. The current market price is Rs. 100. The market capitalisation of company A is Rs. 12000 million.

What is the difference between public issue and private placement?

When an issue is not made to only a select set of people but is open to the general public and any other investor at large, it is a public issue. But if the issue is made to a select set of people, it is called private placement. As per Companies Act, 1956, an issue becomes public if it results in allotment to 50 persons or more. This means an issue can be privately placed where an allotment is made to less than 50 persons.

What is an Initial Public Offer (IPO)?

An Initial Public Offer (IPO) is the selling of securities to the public in the primary market. It is when an unlisted company makes either a fresh issue of securities or an offer for sale of its existing securities or both for the first time to the public. This paves way for listing and trading of the issuer's securities. The sale of securities can be either through book building or through normal public issue.

Who decides the price of an issue?

Indian primary market ushered in an era of free pricing in 1992. Following this, the guidelines have provided that the issuer in consultation with Merchant Banker shall decide the price. There is no price formula stipulated by SEBI. SEBI does not play any role in price fixation. The company and merchant banker are however required to give full disclosures of the parameters which they had considered while deciding the issue price. There are two types of issues, one where company and Lead Merchant Banker fix a price (called fixed price) and other, where the company and the Lead Manager (LM) stipulate a floor price or a price band and leave it to market forces to determine the final price (price discovery through book building process).

What does 'price discovery through Book Building Process' mean?

Book Building is basically a process used in IPOs for efficient price discovery. It is a mechanism where, during the period for which the IPO is open, bids are collected from investors at various prices, which are above or equal to the floor price. The offer price is determined after the bid closing date.

What is the main difference between offer of shares through book building and offer of shares through normal public issue?

Price at which securities will be allotted is not known in case of offer of shares through Book Building while in case of offer of shares through normal public issue, price is known in advance to investor. Under Book Building, investors bid for shares at the floor price or above and after the closure of the book building process the price is determined for allotment of shares.

In case of Book Building, the ***demand*** can be known everyday as the book is being built. But in case of the public issue the demand is known at the close of the issue.

What is Cut-Off Price?

In a Book building issue, the issuer is required to indicate either the price band or a floor price in the prospectus. The actual discovered issue price can be any price in the price band or any price above the floor price. This issue price is called "Cut-Off Price". The issuer and lead manager decides this after considering the book and the investors' appetite for the stock.

What is the floor price in case of book building?

Floor price is the minimum price at which bids can be made.

What is a Price Band in a book built IPO?

The prospectus may contain either the floor price for the securities or a price band within which the investors can bid. The spread between the floor and the cap of the price band shall not be more than 20%. In other words, it means that the cap should not be more than 120% of the floor price. The price band can have a revision and such a revision in the price band shall be widely disseminated by informing the stock exchanges, by issuing a press release and also indicating the change on the relevant website and the terminals of the trading members participating in the book building process. In case the price band is revised, the bidding period shall be extended for a further period of three days, subject to the total bidding period not exceeding ten days.

Who decides the Price Band?

It may be understood that the regulatory mechanism does not play a role in setting the price for issues. It is up to the company to decide on the price or the price band, in consultation with Merchant Bankers.

What is minimum number of days for which a bid should remain open during book building?

The Book should remain open for a minimum of 3 days.

Can open outcry system be used for book building?

No. As per SEBI, only electronically linked transparent facility is allowed to be used in case of book building.

Can the individual investor use the book building facility to make an application?

Yes.

How does one know if shares are allotted in an IPO/offer for sale? What is the timeframe for getting refund if shares not allotted?

As per SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009 the Basis of Allotment should be completed with 8 days from the issue close date. As soon as the basis of allotment is completed, within 2 working days the details of credit to demat account / allotment advice and despatch of refund order needs to be completed. So an investor should know in about 11 days time from the closure of issue, whether shares are allotted to him or not.

How long does it take to get the shares listed after issue?

It takes 12 working days after the closure of the book built issue.

What is the role of a 'Registrar' to an issue?

The Registrar finalizes the list of eligible allottees after deleting the invalid applications and ensures that the corporate action for crediting of shares to the demat accounts of the applicants is done and the dispatch of refund orders to those applicable are sent. The Lead Manager coordinates with the Registrar to ensure follow up so that that the flow of applications from collecting bank branches, processing of the applications and other matters till the basis of allotment is finalized, dispatch security certificates and refund orders completed and securities listed.

Does NSE provide any facility for IPO?

Yes. NSE's electronic trading network spans across the country providing access to investors in remote areas. NSE decided to offer this infrastructure for conducting online IPOs through the Book Building process. NSE operates a fully automated screen based bidding system called NEAT IPO that enables trading members to enter bids directly from their offices through a sophisticated telecommunication network.

Book Building through the NSE system offers several advantages:

- The NSE system offers a nation wide bidding facility in securities
- It provide a fair, efficient & transparent method for collecting bids using the latest electronic trading systems
- Costs involved in the issue are far less than those in a normal IPO
- The system reduces the time taken for completion of the issue process

The IPO market timings are from 10.00 a.m. to 5.00 p.m.

What is a Prospectus?

A large number of new companies float public issues. While a large number of these companies are genuine, quite a few may want to exploit the investors. Therefore, it is very important that an investor before applying for any issue identifies future potential of a company. A part of the guidelines issued by SEBI (Securities and Exchange Board of India) is the disclosure of information to the public. This disclosure includes information like the reason for raising the money, the way money is proposed to be spent, the return expected on the money etc. This information is in the form of **'Prospectus**' which also includes information regarding the size of the issue, the current status of the company, its equity capital, its current and past performance, the promoters, the project, cost of the project, means of financing, product and capacity etc. It also contains lot of mandatory information regarding *underwriting* and statutory compliances. This helps investors to evaluate short term and long term prospects of the company.

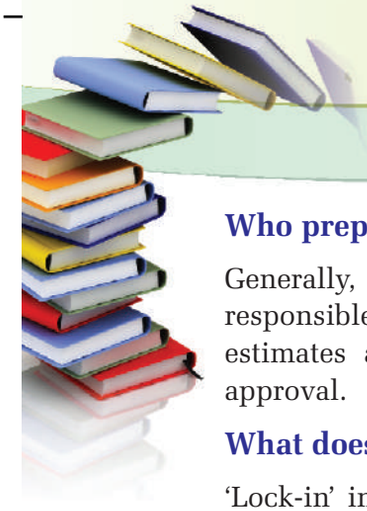
What does 'Draft Offer document' mean?

'Offer document' means *Prospectus* in case of a public issue or offer for sale and *Letter of Offer* in case of a rights issue which is filed with the Registrar of Companies (ROC) and Stock Exchanges (SEs). An offer document covers all the relevant information to help an investor to make his/her investment decision.

'Draft Offer document' means the offer document in draft stage. The draft offer documents are filed with SEBI, atleast 30 days prior to the registration of red herring prospectus or prospectus with ROC. SEBI may specify changes, if any, in the draft Offer Document and the issuer or the lead merchant banker shall carry out such changes in the draft offer document before filing the Offer Document with ROC. The Draft Offer Document is available on the SEBI website for public comments for a period of 21 days from the filing of the Draft Offer Document with SEBI.

What is an 'Abridged Prospectus'?

'Abridged Prospectus' is a shorter version of the Prospectus and contains all the salient features of a Prospectus. It accompanies the application form of public issues.



Who prepares the 'Prospectus'/'Offer Documents'?

Generally, the public issues of companies are handled by *'Merchant Bankers'* who are responsible for getting the project appraised, finalizing the cost of the project, profitability estimates and for preparing of 'Prospectus'. The 'Prospectus' is submitted to SEBI for its approval.

What does one mean by 'Lock-in'?

'Lock-in' indicates a freeze on the sale of shares for a certain period of time. SEBI guidelines have stipulated lock-in requirements on shares of promoters mainly to ensure that the promoters or main persons, who are controlling the company, shall continue to hold some minimum percentage in the company after the public issue.

What is meant by 'Listing of Securities'?

Listing means admission of securities of an issuer to trading privileges (dealings) on a stock exchange through a formal agreement. The prime objective of admission to dealings on the exchange is to provide liquidity and marketability to securities, as also to provide a mechanism for effective control and supervision of trading.

What is a 'Listing Agreement'?

At the time of listing securities of a company on a stock exchange, the company is required to enter into a listing agreement with the exchange. The listing agreement specifies the terms and conditions of listing and the disclosures that shall be made by a company on a continuous basis to the exchange.

What does 'Delisting of securities' mean?

The term 'Delisting of securities' means permanent removal of securities of a listed company from a stock exchange. As a consequence of delisting, the securities of that company would no longer be traded at that stock exchange.

What is SEBI's Role in an Issue?

Any company making a public issue or a listed company making a rights issue of value of more than Rs 50 lakh is required to file a draft offer document with SEBI for its observations. The company can proceed further on the issue only after getting observations from SEBI. The validity period of SEBI's observation letter is three months only i.e. the company has to open its issue within three months period.

Does it mean that SEBI recommends an issue?

SEBI does not recommend any issue nor does take any responsibility either for the financial soundness of any scheme or the project for which the issue is proposed to be made or for the correctness of the statements made or opinions expressed in the offer document. SEBI mainly scrutinizes the issue for seeing that adequate disclosures are made by the issuing company in the prospectus or offer document.

Does SEBI tag make one's money safe?

The investors should make an informed decision purely by themselves based on the contents disclosed in the offer documents. SEBI does not associate itself with any issue/issuer and should

in no way be construed as a guarantee for the funds that the investor proposes to invest through the issue. However, the investors are generally advised to study all the material facts pertaining to the issue including the risk factors before considering any investment. They are strongly warned against relying on any 'tips' or news through unofficial means.

3.2 Foreign Capital Issuance

Can companies in India raise foreign currency resources?

Yes. Indian companies are permitted to raise foreign currency resources through two main sources: a) issue of foreign currency convertible bonds more commonly known as 'Euro' issues and b) issue of ordinary shares through depository receipts namely 'Global Depository Receipts (GDRs)/American Depository Receipts (ADRs)' to foreign investors i.e. to the institutional investors or individual investors.

What is an American Depository Receipt?

An American Depositary Receipt ("ADR") is a physical certificate evidencing ownership of American Depositary Shares ("ADSs"). The term is often used to refer to the ADSs themselves.

What is an ADS?

An American Depositary Share ("ADS") is a U.S. dollar denominated form of equity ownership in a non-U.S. company. It represents the foreign shares of the company held on deposit by a custodian bank in the company's home country and carries the corporate and economic rights of the foreign shares, subject to the terms specified on the ADR certificate.

One or several ADSs can be represented by a physical ADR certificate. The terms ADR and ADS are often used interchangeably.

ADSs provide U.S. investors with a convenient way to invest in overseas securities and to trade non-U.S. securities in the U.S. ADSs are issued by a depository bank, such as JPMorgan Chase Bank. They are traded in the same manner as shares in U.S. companies, on the New York Stock Exchange **(NYSE)** and the American Stock Exchange (AMEX) or quoted on **NASDAQ** and the over-the-counter **(OTC)** market.

Although ADSs are U.S. dollar denominated securities and pay dividends in U.S. dollars, they do not eliminate the currency risk associated with an investment in a non-U.S. company.

What is meant by Global Depository Receipts?

Global Depository Receipts (GDRs) may be defined as a global finance vehicle that allows an issuer to raise capital simultaneously in two or markets through a global offering. GDRs may be used in public or private markets inside or outside US. GDR, a negotiable certificate usually represents company's traded equity/debt. The underlying shares correspond to the GDRs in a fixed ratio say 1 GDR=10 shares.

Unit Code: 4	Unit Title: Secondary Market			
	Session-1 : Securities Market			
Location: Class Room, Broking House, Stock Exchange, FMM Lab,	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Difference between Primary Market and Secondary Market	Role of Secondary Market	Market Outcomes Behavior of Trading How to Participate	**Interactive lecture:** Interdependence of Primary & Secondary Market. **Activity:** Visit to Stock Exchange and Broking Houses in the nearby area for interaction with broker
	Session-2 : Stock Exchange			
	Identify Demutualise Stock Exchange of India Process of SBTS	Process of SBTS Merit of Demutualise Stock Exchanges	Function of SBTS Trading Facilities	**Interactive lecture:** Outcry system abolished **Activity:** Operations of Online/ Electronic Trading
	Session-3 : Trading			
	Direct Market Access Study Contract Note Calculate Brokerage	Process of Registration Identify the Trading Precautions	Features of Trading Trading Techniques	**Interactive lecture:** Pre-trading/ Post-trading Instructions **Activity:** Participate in live/ mock trading & visit www. nlt.co.in

	Session-4 : Equity Investment			
Location: Class Room, Broking House, Stock Exchange, FMM Lab	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Factors that influence Equity Investment Bid/Ask price Portfolio Management	Role of Diversification Well diversified highly liquid portfolio	Design portfolios How Nifty is well diversified	**Interactive lecture:** Generate Portfolios **Activity:** Register mock portfolio on any website
	Session-5 : Equity Investment			
	Features of Debt Investments How interest is designed Relationship between Interest and Debt Pricing	Interest Payable Role of credit Rating Agencies	Trading of Debt Instruments How to buy Debt Securities	**Interactive lecture:** Risk and return of Debt Trading **Activity:** Fill the debt forms and discuss

Chapter 4

SECONDARY MARKET

4.1 Introduction

What is meant by Secondary market?

Secondary market refers to a market where securities are traded after being initially offered to the public in the primary market and/or listed on the Stock Exchange. Majority of the trading is done in the secondary market. Secondary market comprises of equity markets and the debt markets.

What is the role of the Secondary Market?

For the general investor, the secondary market provides an efficient platform for trading of his securities. For the management of the company, Secondary equity markets serve as a monitoring and control conduit—by facilitating value-enhancing control activities, enabling implementation of incentive-based management contracts, and aggregating information (via price discovery) that guides management decisions.

What is the difference between the Primary Market and the Secondary Market?

In the primary market, securities are offered to public for subscription for the purpose of raising capital or fund. Secondary market is an equity trading venue in which already existing/pre-issued securities are traded among investors. Secondary market could be either auction or dealer market. While stock exchange is the part of an auction market, Over-the-Counter (OTC) is a part of the dealer market.

4.1.1 Stock Exchange

What is the role of a Stock Exchange in buying and selling shares?

The stock exchanges in India, under the overall supervision of the regulatory authority, the Securities and Exchange Board of India (SEBI), provide a trading platform, where buyers and sellers can meet to transact in securities. The trading platform provided by NSE is an electronic one and there is no need for buyers and sellers to meet at a physical location to trade. They can trade through the computerized trading screens available with the NSE trading members or the internet based trading facility provided by the trading members of NSE.

What is Demutualisation of stock exchanges?

Demutualisation refers to the legal structure of an exchange whereby the ownership, the management and the trading rights at the exchange are segregated from one another.

How is a demutualised exchange different from a mutual exchange?

In a mutual exchange, the three functions of ownership, management and trading are concentrated into a single Group. Here, the broker members of the exchange are both the owners and the traders on the exchange and they further manage the exchange as well. This at times can lead to conflicts of interest in decision making. A demutualised exchange, on the other hand, has all these three functions clearly segregated, i.e. the ownership, management and trading are in separate hands.

4.1.2 Stock Trading

What is Screen Based Trading?

The trading on stock exchanges in India used to take place through open outcry without use of information technology for immediate matching or recording of trades. This was time consuming and inefficient. This imposed limits on trading volumes and efficiency. In order to provide efficiency, liquidity and transparency, NSE introduced a nationwide, on-line, fully-automated screen based trading system (SBTS) where a member can punch into the computer the quantities of a security and the price at which he would like to transact, and the transaction is executed as soon as a matching sale or buy order from a counter party is found.

What is NEAT?

NSE is the first exchange in the world to use satellite communication technology for trading. Its trading system, called National Exchange for Automated Trading (NEAT), is a state of-the-art client server based application. At the server end all trading information is stored in an in-memory database to achieve minimum response time and maximum system availability for users. It has uptime record of 99.7%. For all trades entered into NEAT system, there is uniform response time of less than one second.

How to place orders with the broker?

You may go to the broker's office or place an order on the phone/internet or as defined in the *Model Agreement,* which every client needs to enter into with his or her broker.

How does an investor get access to internet based trading facility?

There are many brokers of the NSE who provide internet based trading facility to their clients. Internet based trading enables an investor to buy/sell securities through internet which can be accessed from a computer at the investor's residence or anywhere else where the client can access the internet. Investors need to get in touch with an NSE broker providing this service to avail of internet based trading facility.

What is a Contract Note?

Contract Note is a confirmation of trades done on a particular day on behalf of the client by a trading member. It imposes a legally enforceable relationship between the client and the trading member with respect to purchase/sale and settlement of trades. It also helps to settle disputes/claims between the investor and the trading member. It is a prerequisite for filing a complaint or arbitration proceeding against the trading member in case of a dispute. A valid contract note should be in the prescribed form, contain the details of trades, stamped with requisite value and duly signed by the authorized signatory. Contract notes are kept in duplicate, the trading member and the client should keep one copy each. After verifying the details contained therein, the client keeps one copy and returns the second copy to the trading member duly acknowledged by him.

What details are required to be mentioned on the contract note issued by the stock broker?

A broker has to issue a contract note to clients for all transactions in the form specified by the stock exchange. The contract note inter-alia should have following:

- Name, address and SEBI Registration number of the Member broker.
- Name of Partner/Proprietor/Authorised Signatory.
- Dealing Office Address/Tel. No./Fax no., Code number of the member given by the Exchange.
- Contract number, date of issue of contract note, settlement number and time period for settlement.
- Constituent (Client) name/Code Number.
- Order number and order time corresponding to the trades.
- Trade number and Trade time.
- Quantity and kind of security bought/sold by the client.
- Brokerage and Purchase/Sale rate.
- Service tax rates, Securities Transaction Tax and any other charges levied by the broker.
- Appropriate stamps have to be affixed on the contract note or it is mentioned that the consolidated stamp duty is paid.
- Signature of the Stock Broker/Authorized Signatory.

What is the maximum brokerage that a broker can charge?

The maximum brokerage that can be charged by a broker from his clients as commission cannot be more than 2.5% of the value mentioned in the respective purchase or sale note.

Why should one trade on a recognized stock exchange only for buying/selling shares?

An investor does not get any protection if he trades outside a stock exchange. Trading at the exchange offers investors the best prices prevailing at the time in the market, lack of any counter-party risk which is assumed by the *clearing corporation,* access to investor grievance and redressal mechanism of stock exchanges, protection upto a prescribed limit, from the Investor Protection Fund etc.

How to know if the broker or sub broker is registered?

One can confirm it by verifying the registration certificate issued by SEBI. A broker's registration number begins with the letters 'INB' and that of a sub broker with the letters 'INS'.

What precautions must one take before investing in the stock markets?

Here are some useful pointers to bear in mind before you invest in the markets:

- Make sure your broker is registered with SEBI and the exchanges and do not deal with unregistered intermediaries.
- Ensure that you receive contract notes for all your transactions from your broker within one working day of execution of the trades.
- All investments carry risk of some kind. Investors should always know the risk that they are taking and invest in a manner that matches their risk tolerance.
- Do not be misled by market rumours, during advertisement or 'hot tips' of the day.
- Take informed decisions by studying the fundamentals of the company. Find out the business the company is into, its future prospects, quality of management, past track record

etc Sources of knowing about a company are through annual reports, economic magazines, databases available with vendors or your financial advisor.

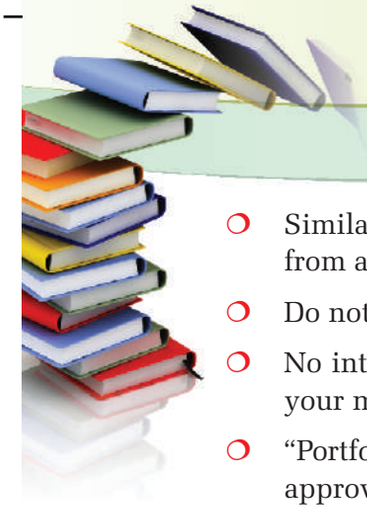
- If your financial advisor or broker advises you to invest in a company you have never heard of, be cautious. Spend some time checking out about the company before investing.
- Do not be attracted by announcements of fantastic results/news reports, about a company. Do your own research before investing in any stock.
- Do not be attracted to stocks based on what an internet website promotes, unless you have done adequate study of the company.
- Investing in very low priced stocks or what are known as penny stocks does not guarantee high returns.
- Be cautious about stocks which show a sudden spurt in price or trading activity.
- Any advise or tip that claims that there are huge returns expected, especially for acting quickly, may be risky and may to lead to losing some, most, or all of your money.

What Do's and Don'ts should an investor bear in mind when investing in the stock markets?

- Ensure that the intermediary (broker/sub-broker) has a valid SEBI registration certificate.
- Enter into an agreement with your broker/sub-broker setting out terms and conditions clearly.
- Ensure that you give all your details in the 'Know Your Client' form.
- Ensure that you read carefully and understand the contents of the 'Risk Disclosure Document' and then acknowledge it.
- Insist on a contract note issued by your broker only, for trades done each day.
- Ensure that you receive the contract note from your broker within 24 hours of the transaction.
- Ensure that the contract note contains details such as the broker's name, trade time and number, transaction price, brokerage, service tax, securities transaction tax etc. and is signed by the Authorised Signatory of the broker.
- To cross check genuineness of the transactions, log in to the NSE website (www.nseindia.com) and go to the 'trade verification' facility extended by NSE. Issue account payee cheques/demand drafts in the name of your broker only, as it appears on the contract note/SEBI registration certificate of the broker.
- While delivering shares to your broker to meet your obligations, ensure that the delivery instructions are made only to the designated account of your broker only.
- Insist on periodical statement of accounts of funds and securities from your broker. Cross check and reconcile your accounts promptly and in case of any discrepancies bring it to the attention of your broker immediately.

Please ensure that you receive payments/deliveries from your broker, for the transactions entered by you, within one working day of the payout date.

- Ensure that you do not undertake deals on behalf of others or trade on your own name and then issue cheques from a family members'/ friends' bank accounts.



- Similarly, the Demat delivery instruction slip should be from your own Demat account, not from any other family members'/friends' accounts.
- Do not sign blank delivery instruction slip(s) while meeting security payin obligation.
- No intermediary in the market can accept deposit assuring fixed returns. Hence do not give your money as deposit against assurances of returns.
- "Portfolio Management Services' could be offered only by intermediaries having specific approval of SEBI for PMS. Hence, do not part your funds to unauthorized persons for Portfolio Management.
- Delivery Instruction Slip is a very valuable document. Do not leave signed blank delivery instruction slip with anyone. While meeting pay in obligation make sure that correct ID of authorised intermediary is filled in the Delivery Instruction Form.
- Be cautious while taking funding form authorised intermediaries as these transactions are not covered under Settlement Guarantee mechanisms of the exchange.
- Insist on execution of all orders under unique client code allotted to you. Do not accept trades executed under some other client code to your account.
- When you are authorising someone through 'Power of Attorney' for operation of your DP account, make sure that:
  - your authorization is in favour of registered intermediary only.
  - authorization is only for limited purpose of debits and credits arising out of valid transactions executed through that intermediary only.
  - you verify DP statement periodically say every month/fortnight to ensure that no unauthorised transactions have taken place in your account.
  - authorization given by you has been properly used for the purpose for which authorization has been given.
  - in case you find wrong entries please report in writing to the authorized intermediary.
- Don't accept unsigned/duplicate contract note.
- Don't accept contract note signed by any unauthorised person.
- Don't delay payment/deliveries of securities to broker.
- In the event of any discrepancies/disputes, please bring them to the notice of the broker immediately in writing (acknowledged by the broker) and ensure their prompt rectification.
- In case of sub-broker disputes, inform the main broker in writing about the dispute at the earliest. If your broker/sub-broker does not resolve your complaints within a reasonable period please bring it to the attention of the 'Investor Services Cell' of the NSE.
- While lodging a complaint with the 'Investor Grievances Cell' of the NSE, it is very important that you submit copies of all relevant documents like contract notes, proof of payments/delivery of shares etc. alongwith the complaint. Remember, in the absence of sufficient documents, resolution of complaints becomes difficult.
- Familiarise yourself with the rules, regulations and circulars issued by stock exchanges/SEBI before carrying out any transaction.

4.2 Products in the Secondary Markets

What are the products dealt in the Secondary Markets?

Following are the main financial products/instruments dealt in the Secondary market which may be divided broadly into Shares and Bonds:

Shares:

Equity Shares: An equity share, commonly referred to as ordinary share, represents the form of fractional ownership in a business venture.

Rights Issue/ Rights Shares: The issue of new securities to existing shareholders at a ratio to those already held, at a price. For e.g. a 2:3 rights issue at Rs. 125, would entitle a shareholder to receive 2 shares for every 3 shares held at a price of Rs. 125 per share.

Bonus Shares: Shares issued by the companies to their shareholders free of cost based on the number of shares the shareholder owns.

Preference shares: Owners of these kind of shares are entitled to a fixed dividend or dividend calculated at a fixed rate to be paid regularly before dividend can be paid in respect of equity share. They also enjoy priority over the equity shareholders in payment of surplus. But in the event of liquidation, their claims rank below the claims of the company's creditors, bondholders/debenture holders.

Cumulative Preference Shares: A type of preference shares on which dividend accumulates if remained unpaid. All arrears of preference dividend have to be paid out before paying dividend on equity shares.

Cumulative Convertible Preference Shares: A type of preference shares where the dividend payable on the same accumulates, if not paid. After a specified date, these shares will be converted into equity capital of the company.

Bond: is a negotiable certificate evidencing indebtedness. It is normally unsecured. A debt security is generally issued by a company, municipality or government agency. A bond investor lends money to the issuer and in exchange, the issuer promises to repay the loan amount on a specified maturity date. The issuer usually pays the bond holder periodic interest payments over the life of the loan. The various types of Bonds are as follows:

Zero Coupon Bond: Bond issued at a discount and repaid at a face value. No periodic interest is paid. The difference between the issue price and redemption price represents the return to the holder. The buyer of these bonds receives only one payment, at the maturity of the bond.

Convertible Bond: A bond giving the investor the option to convert the bond into equity at a fixed conversion price.

Treasury Bills: Short-term (up to one year) bearer discount security issued by government as a means of financing their cash requirements.

4.2.1 Equity Investment

Why should one invest in equities in particular?

When you buy a share of a company you become a shareholder in that company. Shares are also known as Equities. Equities have the potential to increase in value over time. Research studies have proved that the equity returns have outperformed the returns of most other forms of

investments in the long term. Investors buy equity shares or equity based mutual funds because:-

- Equities are considered the most rewarding, when compared to other investment options if held over a long duration.
- Research studies have proved that investments in some shares with a longer tenure of investment have yielded far superior returns than any other investment. The average annual return of the stock market over the period of last fifteen years, if one takes the Nifty index as the benchmark to compute the returns, has been around 16%.

However, this does not mean all equity investments would guarantee similar high returns. Equities are high risk investments. Though higher the risk, higher the potential returns, high risk also indicates that the investor stands to lose some or all his investment amount if prices move unfavorably. One needs to study equity markets and stocks in which investments are being made carefully, before investing.

What has been the average return on Equities in India?

If we take the Nifty index returns for the past fifteen years, Indian stock market has returned about 16% to investors on an average in terms of increase in share prices or capital appreciation annually. Besides that on average stocks have paid 1.5% dividend annually. *Dividend* is a percentage of the face value of a share that a company returns to its shareholders from its annual profits. Compared to most other forms of investments, investing in equity shares offers the highest rate of return, if invested over a longer duration.

Which are the factors that influence the price of a stock?

Broadly there are two factors: (1) stock specific and (2) market specific. The stock-specific factor is related to people's expectations about the company, its future earnings capacity, financial health and management, level of technology and marketing skills.

The market specific factor is influenced by the investor's sentiment towards the stock market as a whole. This factor depends on the environment rather than the performance of any particular company. Events favourable to an economy, political or regulatory environment like high economic growth, friendly budget, stable government etc. can fuel euphoria in the investors, resulting in a boom in the market. On the other hand, unfavourable events like war, economic crisis, communal riots, minority government etc. depress the market irrespective of certain companies performing well. However, the effect of market-specific factor is generally short-term. Despite ups and downs, price of a stock in the long run gets stabilized based on the stock-specific factors. Therefore, a prudent advice to all investors is to analyse and invest and not speculate in shares.

What is meant by the terms Growth Stock/Value Stock?

Growth Stocks:

In the investment world we come across terms such as Growth stocks, Value stocks etc. Companies whose potential for growth in sales and earnings are excellent, are growing faster than other companies in the market or other stocks in the same industry are called the Growth Stocks. These companies usually pay little or no dividends and instead prefer to reinvest their profits in their business for further expansions.

Value Stocks:

The task here is to look for stocks that have been overlooked by other investors and which may have a 'hidden value'. These companies may have been beaten down in price because of some bad event, or may be in an industry that's not fancied by most investors. However, even a company that has seen its stock price decline still has assets to its name - buildings, real estate, inventories, subsidiaries, and so on. Many of these assets still have value, yet that value may not be reflected in the stock's price. Value investors look to buy stocks that are undervalued, and then hold those stocks until the rest of the market realizes the real value of the company's assets. The value investors tend to purchase a company's stock usually based on relationships between the current market price of the company and certain business fundamentals. They like P/E ratio being below a certain absolute limit; dividend yields above a certain absolute limit; Total sales at a certain level relative to the company's market capitalization, or market value etc.

How can one acquire equity shares?

You may subscribe to issues made by corporates in the primary market. In the primary market, resources are mobilised by the corporates through fresh public issues (IPOs) or through private placements. Alternately, you may purchase shares from the secondary market. To buy and sell securities you should approach a SEBI registered trading member (broker) of a recognized stock exchange.

What is Bid and Ask price?

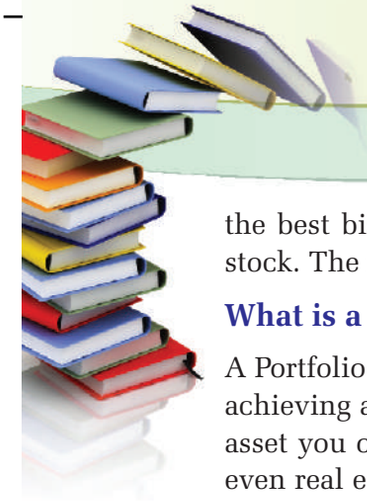
The 'Bid' is the buyer's price. It is this price that you need to know when you have to sell a stock. Bid is the rate/price at which there is a ready buyer for the stock, which you intend to sell.

The 'Ask' (or offer) is what you need to know when you're buying i.e. this is the rate/ price at which there is seller ready to sell his stock. The seller will sell his stock if he gets the quoted "Ask' price.

If an investor looks at a computer screen for a quote on the stock of say XYZ Ltd, it might look something like this:

Bid (Buy side)				**Ask (Sell side)**
	Qty.	**Price (Rs.)**	**Qty.**	**Price (Rs.)**
	1000	50.25	50.35	2000
	500	50.10	50.40	1000
	550	50.05	50.50	1500
	2500	50.00	50.55	3000
	1300	49.85	50.65	1450
Total	**5850**			**8950**

Here, on the left-hand side after the Bid quantity and price, whereas on the right hand side we find the Ask quantity and prices. The best Buy (Bid) order is the order with the highest price and therefore sits on the first line of the Bid side (1000 shares @ Rs. 50.25). The best Sell (Ask) order is the order with the lowest sell price (2000 shares @ Rs. 50.35). The difference in the price of



the best bid and ask is called as the Bid-Ask spread and often is an indicator of liquidity in a stock. The narrower the difference the more liquid or highly traded is the stock.

What is a Portfolio?

A Portfolio is a combination of different investment assets mixed and matched for the purpose of achieving an investor's goal(s). Items that are considered a part of your portfolio can include any asset you own-from shares, debentures, bonds, mutual fund units to items such as gold, art and even real estate etc. However, for most investors a portfolio has come to signify an investment in financial instruments like shares, debentures, fixed deposits, mutual fund units.

What is Diversification?

It is a risk management technique that mixes a wide variety of investments within a portfolio. It is designed to minimize the impact of any one security on overall portfolio performance. Diversification is possibly the best way to reduce the risk in a portfolio.

What are the advantages of having a diversified portfolio?

A good investment portfolio is a mix of a wide range of asset class. Different securities perform differently at any point in time, so with a mix of asset types, your entire portfolio does not suffer the impact of a decline of any one security. When your stocks go down, you may still have the stability of the bonds in your portfolio. There have been all sorts of academic studies and formulas that demonstrate why diversification is important, but it's really just the simple practice of "not putting all your eggs in one basket." If you spread your investments across various types of assets and markets, you'll reduce the risk of your entire portfolio getting affected by the adverse returns of any single asset class.

4.2.2. Debt Investment

What is a 'Debt Instrument'?

Debt instrument represents a contract whereby one party lends money to another on pre-determined terms with regards to rate and periodicity of interest, repayment of principal amount by the borrower to the lender.

In Indian securities markets, the term *'bond'* is used for debt instruments issued by the Central and State Governments and public sector organizations and the term '*debenture*' is used for instruments issued by private corporate sector.

What are the features of debt instruments?

Each debt instrument has three features: Maturity, coupon and principal.

Maturity: Maturity of a bond refers to the date, on which the bond matures, which is the date on which the borrower has agreed to repay the principal. *Term-to-Maturity* refers to the number of years remaining for the bond to mature. The Term-to-Maturity changes everyday, from date of issue of the bond until its maturity. The term to maturity of a bond can be calculated on any date, as the distance between such a date and the date of maturity. It is also called the term or the tenure of the bond.

Coupon: Coupon refers to the periodic interest payments that are made by the borrower (who is also the issuer of the bond) to the lender (the subscriber of the bond). Coupon rate is the rate at which interest is paid, and is usually represented as a percentage of the par value of a bond.

Principal: Principal is the amount that has been borrowed, and is also called the par value or face value of the bond. The coupon is the product of the principal and the coupon rate.

The name of the bond itself conveys the key features of a bond. For example, a GS CG2008 11.40% bond refers to a Central Government bond maturing in the year 2008 and paying a coupon of 11.40%. Since Central Government bonds have a face value of Rs.100 and normally pay coupon semi-annually, this bond will pay Rs. 5.70 as six-monthly coupon, until maturity.

What is meant by 'Interest' payable by a debenture or a bond?

Interest is the amount paid by the borrower (the company) to the lender (the debenture-holder) for borrowing the amount for a specific period of time. The interest may be paid annual, semi-annually, quarterly or monthly and is paid usually on the face value (the value printed on the bond certificate) of the bond.

What are the Segments in the Debt Market in India?

There are three main segments in the debt markets in India, viz., (1) Government Securities, (2) Public Sector Units (PSU) bonds, and (3) Corporate securities.

The market for *Government Securities* comprises the Centre, State and State-sponsored securities. In the recent past, local bodies such as municipalities have also begun to tap the debt markets for funds. Some of the PSU bonds are tax free, while most bonds including government securities are not tax-free. Corporate bond markets comprise of commercial paper and bonds. These bonds typically are structured to suit the requirements of investors and the issuing corporate, and include a variety of tailor-made features with respect to interest payments and redemption.

Who are the Participants in the Debt Market?

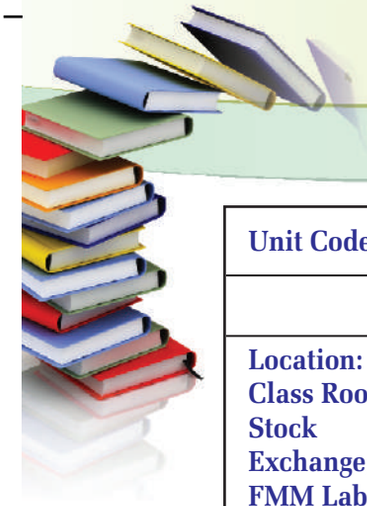
Given the large size of the trades, Debt Market is predominantly a wholesale market, with dominant institutional investor participation. The investors in the debt markets are mainly banks, financial institutions, mutual funds, provident funds, insurance companies and corporates.

Are bonds rated for their credit quality?

Most Bond/Debenture issues are rated by specialised credit rating agencies. Credit rating agencies in India are CRISIL, CARE, ICRA and Fitch. The yield on a bond varies inversely with its credit (safety) rating. The safer the instrument, the lower is the rate of interest offered.

How can one acquire securities in the debt market?

You may subscribe to issues made by the government/corporates in the primary market. Alternatively, you may purchase the same from the secondary market through the stock exchanges.



Unit Code: 5	Unit Title: Derivatives			
	Session-1 : Futures and Options Market			
Location: Class Room, Stock Exchange, FMM Lab,	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Find the Derivatives Instruments Difference between future and options.	Behavior of Derivative Trading Risk to Trade in Derivatives	How you access Derivative Terminal Is option more suited product against future	**Interactive lecture:** Risk and Return of Derivative Trading **Activity:** Mock Trading Techniques of Derivatives
	Session-2 : Commodity			
	Identify the features of Commodity Derivatives Distinguish between Commodity & Financial Derivatives	Commodity Derivative Exchange in India How Commodity Trade	Three participants Hedgers Speculators Arbitrageurs Performance of Commodity & Financial Derivatives	**Interactive lecture:** Risk and Returns of Commodity Trading **Activity:** Trading Techniques Basics of Commodity Market

Chapter 5

DERIVATIVES

What are Types of Derivatives?

Forwards: A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price.

Futures: A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts, such as futures of the Nifty index.

Options: An Option is a contract which gives the right, but not an obligation, to buy or sell the underlying at a stated date and at a stated price. While a buyer of an option pays the premium and buys the right to exercise his option, the writer of an option is the one who receives the option premium and therefore obliged to sell/buy the asset if the buyer exercises it on him. Options are of two types - **Calls** and **Puts** options:

'Calls' give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date.

'Puts' give the buyer the right, but not the obligation to sell a given quantity of underlying asset at a given price on or before a given future date.

Presently, at NSE futures and options are traded on the Nifty, CNX IT, BANK Nifty and 116 single stocks.

Warrants: Options generally have lives of up to one year. The majority of options traded on exchanges have maximum maturity of nine months. Longer dated options are called Warrants and are generally traded over-the-counter.

What is an 'Option Premium'?

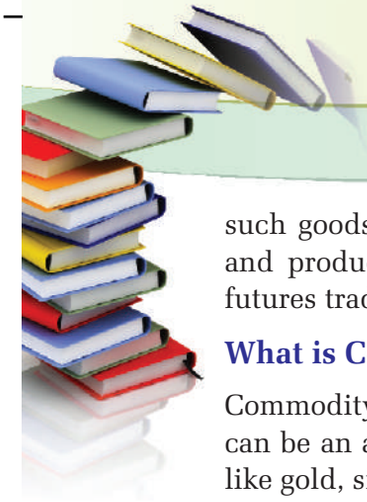
At the time of buying an option contract, the buyer has to pay premium. The premium is the price for acquiring the right to buy or sell. It is price paid by the option buyer to the option seller for acquiring the right to buy or sell. Option premiums are always paid upfront.

What is 'Commodity Exchange'?

A Commodity Exchange is an association, or a company of any other body corporate organizing futures trading in commodities. In a wider sense, it is taken to include any organized market place where trade is routed through one mechanism, allowing effective competition among buyers and among sellers - this would include auction-type exchanges, but not wholesale markets, where trade is localized, but effectively takes place through many non-related individual transactions between different permutations of buyers and sellers.

What is meant by 'Commodity'?

FCRA Forward Contracts (Regulation) Act, 1952 defines "goods" as "every kind of movable property other than actionable claims, money and securities". Futures' trading is organized in



such goods or commodities as are permitted by the Central Government. At present, all goods and products of agricultural (including plantation), mineral and fossil origin are allowed for futures trading under the auspices of the commodity exchanges recognized under the FCRA.

What is Commodity Derivatives Market?

Commodity derivatives market trade contracts for which the underlying asset is commodity. It can be an agricultural commodity like wheat, soybeans, rapeseed, cotton, etc or precious metals like gold, silver, etc.

What is the difference between Commodity and Financial derivatives?

The basic concept of a derivative contract remains the same whether the underlying happens to be a commodity or a financial asset. However there are some features which are very peculiar to commodity derivative markets. In the case of financial derivatives, most of these contracts are cash settled. Even in the case of physical settlement, financial assets are not bulky and do not need special facility for storage. Due to the bulky nature of the underlying assets, physical settlement in commodity derivatives creates the need for warehousing. Similarly, the concept of varying quality of asset does not really exist as far as financial underlyings are concerned. However in the case of commodities, the quality of the asset underlying a contract can vary at times.

Unit Code: 6	Unit Title: Depository Session-1 : Holding of Securities			
Location: Class Room, Stock Exchange, FMM Lab	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Similarities between Bank and Depositary Role of Depositary	How many Depositaries and Depositary participants are there in India Discuss features	How to open Demat a/c DRF Procedure	**Interactive lecture:** Benefits of Holding Electronic Shares **Activity:** Discussion on Physical Securities
	Session-2 : Ownership			
	Benefits of Equity Ownership Describe ISIN Role of Custodians	Identify ISIN of few Securities How Company get ISIN	Corporate Actions Stock Benefits Cash Benefits	**Interactive lecture:** Discuss Corporate Actions of any Company **Activity:** Calculate all Corporate Benefits
	Session-3 : Dematerialization			
	Conversion of Physical to Electronic form to shares Demat Benefits	Procedure of Demat and Remat Nomination & other Documentation	Proofs, Procedures and Objection of Demat Mode	**Interactive lecture:** All steps of Demat **Activity:** Fill DRF and Submit in DP

Chapter 6

DEPOSITORY

How is a depository similar to a bank?

A Depository can be compared with a bank, which holds the funds for depositors. An analogy between a bank and a depository may be drawn as follows:

BANK	DEPOSITORY
Holds funds in an account.	Hold securities in an account
Transfers funds between accounts on the instruction of the account holder.	Transfers securities between accounts on the instruction of the account holder.
Facilitates transfers without having to handle money.	Facilitates transfers of ownership without having to handle securities.
Facilitates safekeeping of money.	Facilitates safekeeping of shares.

Which are the depositories in India?

There are two depositories in India which provide dematerialization of securities. The National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL).

What are the benefits of participation in a depository?

The benefits of participation in a depository are:

- Immediate transfer of securities
- No stamp duty on transfer of securities
- Elimination of risks associated with physical certificates such as bad delivery, fake securities, etc.
- Reduction in paperwork involved in transfer of securities
- Reduction in transaction cost
- Ease of nomination facility
- Change in address recorded with DP gets registered electronically with all companies in which investor holds securities eliminating the need to correspond with each of them separately
- Transmission of securities is done directly by the DP eliminating correspondence with companies
- Convenient method of consolidation of folios/accounts
- Holding investments in equity, debt instruments and Government securities in a single account; automatic credit into demat account, of shares, arising out of split/ consolidation/merger etc.

Who is a Depository Participant (DP)?

The Depository provides its services to investors through its agents called depository participants (DPs). These agents are appointed by the depository with the approval of SEBI. According to SEBI regulations, amongst others, three categories of entities, i.e. Banks, Financial Institutions and SEBI registered trading members can become DPs.

Does one need to keep any minimum balance of securities in his account with his DP?

No. The depository has not prescribed any minimum balance. You can have zero balance in your account.

What is an ISIN?

ISIN (International Securities Identification Number) is a unique identification number for a security.

What is a Custodian?

A Custodian is basically an organisation, which helps register and safeguard the securities of its clients.

Besides safeguarding securities, a custodian also keeps track of corporate actions on behalf of its clients:

- Maintaining a client's securities account
- Collecting the benefits or rights accruing to the client in respect of securities
- Keeping the client informed of the actions taken or to be taken by the issue of securities, having a bearing on the benefits or rights accruing to the client.

How can one convert physical holding into electronic holding i.e. how can one dematerialise securities?

In order to dematerialise physical securities one has to fill in a Demat Request Form (DRF) which is available with the DP and submit the same along with physical certificates one wishes to dematerialise. Separate DRF has to be filled for each ISIN number.

Can odd lot shares be dematerialised?

Yes, odd lot share certificates can also be dematerialised.

Do dematerialised shares have distinctive numbers?

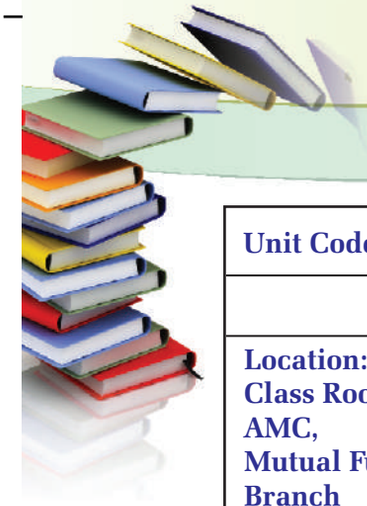
Dematerialised shares do not have any distinctive numbers. These shares are *fungible,* which means that all the holdings of a particular security will be identical and interchangeable.

Can electronic holdings be converted into Physical certificates?

Yes. The process is called *Rematerialisation.* If one wishes to get back your securities in the physical form one has to fill in the Remat Request Form (RRF) and request your DP for rematerialisation of the balances in your securities account.

Can one dematerialise his debt instruments, mutual fund units, government securities in his demat account?

Yes. You can dematerialise and hold all such investments in a single demat account.



Unit Code: 7	Unit Title: Mutual Fund			
	Session-1 : Basics of Mutual Fund			
Location: Class Room, AMC, Mutual Fund Branch Office	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Define MF Benefits of MF How to calculate NAV Procedure of NFO	Find NAV of few MF Schemes Study NFO	Working and operations of Mutual Fund Distinguish Open – ended & Close ended	**Interactive lecture:** Calculate Returns of the Schemes. **Activity:** Find best suited scheme for each student
	Session-2 : Active/Passive Fund			
	Tools and Techniques of Active and Passive Fund	Benefits of Active / Passive Funds	Find Mutual Fund Scheme: less Risk and High Returns	**Interactive lecture:** Risk and Returns of MF **Activity:** Role plays portfolio manager

Chapter 7

MUTUAL FUNDS

What is the Regulatory Body for Mutual Funds?

Securities Exchange Board of India (SEBI) is the regulatory body for all the mutual funds. All the mutual funds must get registered with SEBI.

What are the benefits of investing in Mutual Funds?

There are several benefits from investing in a Mutual Fund:

Small investments:

Mutual funds help you to reap the benefit of returns by a portfolio spread across a wide spectrum of companies with small investments.

Professional Fund Management:

Professionals having considerable expertise, experience and resources manage the pool of money collected by a mutual fund. They thoroughly analyse the markets and economy to pick good investment opportunities.

Spreading Risk:

An investor with limited funds might be able to invest in only one or two stocks/bonds, thus increasing his or her risk. However, a mutual fund will spread its risk by investing a number of sound stocks or bonds. A fund normally invests in companies across a wide range of industries, so the risk is diversified.

Transparency:

Mutual Funds regularly provide investors with information on the value of their investments. Mutual Funds also provide complete portfolio disclosure of the investments made by various schemes and also the proportion invested in each asset type.

Choice:

The large amount of Mutual Funds offer the investor a wide variety to choose from. An investor can pick up a scheme depending upon his risk/return profile.

Regulations:

All the mutual funds are registered with SEBI and they function within the provisions of strict regulation designed to protect the interests of the investor.

What is NAV?

NAV or Net Asset Value of the fund is the cumulative market value of the assets of the fund net of its liabilities. NAV per unit is simply the net value of assets divided by the number of units outstanding. Buying and selling into funds is done on the basis of NAV-related prices.

The NAV of a mutual fund are required to be published in newspapers. The NAV of an open end scheme should be disclosed on a daily basis and the NAV of a close end scheme should be disclosed at least on a weekly basis.

Are there any risks involved in investing in Mutual Funds?

Mutual Funds do not provide assured returns. Their returns are linked to their performance. They invest in shares, debentures, bonds etc. All these investments involve an element of risk. The unit value may vary depending upon the performance of the company and if a company defaults in payment of interest/principal on their debentures/bonds the performance of the fund may get affected. Besides incase there is a sudden downturn in an industry or the government comes up with new a regulation which affects a particular industry or company the fund can again be adversely affected. All these factors influence the performance of Mutual Funds.

Some of the Risk to which Mutual Funds are exposed to is given below:

Market risk

If the overall stock or bond markets fall on account of overall economic factors, the value of stock or bond holdings in the fund's portfolio can drop, thereby impacting the fund performance.

Non-market risk

Bad news about an individual company can pull down its stock price, which can negatively affect fund holdings. This risk can be reduced by having a diversified portfolio that consists of a wide variety of stocks drawn from different industries.

Interest rate risk

Bond prices and interest rates move in opposite directions. When interest rates rise, bond prices fall and this decline in underlying securities affects the fund negatively.

Credit risk

Bonds are debt obligations. So when the funds invest in corporate bonds, they run the risk of the corporate defaulting on their interest and principal payment obligations and when that risk crystallizes, it leads to a fall in the value of the bond causing the NAV of the fund to take a beating.

What are the different types of Mutual funds?

Mutual funds are classified in the following manner:

(a) On the basis of Objective

Equity Funds/ Growth Funds

Funds that invest in equity shares are called equity funds. They carry the principal objective of capital appreciation of the investment over the medium to long-term. They are best suited for investors who are seeking capital appreciation. There are different types of equity funds such as Diversified funds, Sector specific funds and Index based funds.

Diversified Funds

These funds invest in companies spread across sectors. These funds are generally meant for risk-averse investors who want a diversified portfolio across sectors.

Sector Funds

These funds invest primarily in equity shares of companies in a particular business sector or industry. These funds are targeted at investors who are bullish or fancy the prospects of a particular sector.

Index Funds

These funds invest in the same pattern as popular market indices like S&P CNX Nifty or S&P CNX 500. The money collected from the investors is invested only in the stocks, which represent the index. For e.g. a Nifty index fund will invest only in the Nifty 50 stocks. The objective of such funds is not to beat the market but to give a return equivalent to the market returns.

Tax Saving Funds

These funds offer tax benefits to investors under the Income Tax Act. Opportunities provided under this scheme are in the form of tax rebates under the Income Tax act.

Debt/Income Funds

These funds invest predominantly in high-rated fixed-income-bearing instruments like bonds, debentures, government securities, commercial paper and other money market instruments. They are best suited for the medium to long-term investors who are averse to risk and seek capital preservation. They provide a regular income to the investor.

Liquid Funds/Money Market Funds

These funds invest in highly liquid money market instruments. The period of investment could be as short as a day. They provide easy liquidity. They have emerged as an alternative for savings and short-term fixed deposit accounts with comparatively higher returns. These funds are ideal for corporates, institutional investors and business houses that invest their funds for very short periods.

Gilt Funds

These funds invest in Central and State Government securities. Since they are Government backed bonds they give a secured return and also ensure safety of the principal amount. They are best suited for the medium to long-term investors who are averse to risk.

Balanced Funds

These funds invest both in equity shares and fixed-income-bearing instruments (debt) in some proportion. They provide a steady return and reduce the volatility of the fund while providing some upside for capital appreciation. They are ideal for medium to long-term investors who are willing to take moderate risks.

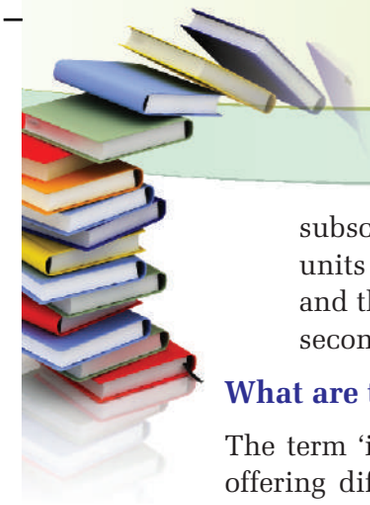
(b) On the basis of Flexibility

Open-ended Funds

These funds do not have a fixed date of redemption. Generally they are open for subscription and redemption throughout the year. Their prices are linked to the daily net asset value (NAV). From the investors' perspective, they are much more liquid than closed-ended funds.

Close-ended Funds

These funds are open initially for entry during the Initial Public Offering (IPO) and thereafter closed for entry as well as exit. These funds have a fixed date of redemption. One of the characteristics of the close-ended schemes is that they are generally traded at a discount to NAV; but the discount narrows as maturity nears. These funds are open for



subscription only once and can be redeemed only on the fixed date of redemption. The units of these funds are listed on stock exchanges (with certain exceptions), are tradable and the subscribers to the fund would be able to exit from the fund at any time through the secondary market.

What are the different investment plans that Mutual Funds offer?

The term 'investment plans' generally refers to the services that the funds provide to investors offering different ways to invest or reinvest. The different investment plans are an important consideration in the investment decision, because they determine the flexibility available to the investor. Some of the investment plans offered by mutual funds in India are:

Growth Plan and Dividend Plan

A growth plan is a plan under a scheme wherein the returns from investments are reinvested and very few income distributions, if any, are made. The investor thus only realizes capital appreciation on the investment. Under the dividend plan, income is distributed from time to time. This plan is ideal to those investors requiring regular income.

Dividend Reinvestment Plan

Dividend plans of schemes carry an additional option for reinvestment of income distribution. This is referred to as the dividend reinvestment plan. Under this plan, dividends declared by a fund are reinvested in the scheme on behalf of the investor, thus increasing the number of units held by the investors.

What are the rights that are available to a Mutual Fund holder in India?

As per SEBI Regulations on Mutual Funds, an investor is entitled to:

1. Receive Unit certificates or statements of accounts confirming your title within 6 weeks from the date your request for a unit certificate is received by the Mutual Fund.
2. Receive information about the investment policies, investment objectives, financial position and general affairs of the scheme.
3. Receive dividend within 30 days of their declaration and receive the redemption or repurchase proceeds within 10 days from the date of redemption or repurchase.
4. The trustees shall be bound to make such disclosures to the unit holders as are essential in order to keep them informed about any information, which may have an adverse bearing on their investments.
5. 75% of the unit holders with the prior approval of SEBI can terminate the AMC of the fund.
6. 75% of the unit holders can pass a resolution to wind-up the scheme.
7. An investor can send complaints to SEBI, who will take up the matter with the concerned Mutual Funds and follow up with them till they are resolved.

What is a Fund Offer Document?

A Fund Offer Document is a document that offers you all the information you could possibly need about a particular scheme and the fund launching that scheme. That way, before you put in your money, you're well aware of the risks etc involved. This has to be designed in accordance with the guidelines stipulated by SEBI and the prospectus must disclose details about:

- Investment objectives
- Risk factors and special considerations
- Summary of expenses
- Constitution of the fund
- Guidelines on how to invest
- Organization and capital structure
- Tax provisions related to transactions
- Financial information

What is Active Fund Management?

When investment decisions of the fund are at the discretion of a fund manager(s) and he or she decides which company, instrument or class of assets the fund should invest in based on research, analysis, market news etc. such a fund is called as an actively managed fund. The fund buys and sells securities actively based on changed perceptions of investment from time to time. Based on the classifications of shares with different characteristics, 'active' investment managers construct different portfolio. Two basic investment styles prevalent among the mutual funds are Growth Investing and Value Investing:

- **Growth Investing Style**

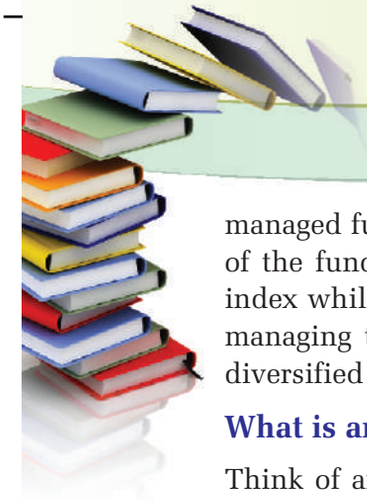
  The primary objective of equity investment is to obtain capital appreciation. A growth manager looks for companies that are expected to give above average earnings growth, where the manager feels that the earning prospects and therefore the stock prices in future will be even higher. Identifying such growth sectors is the challenge before the growth investment manager.

- **Value Investment Style**

  A Value Manager looks to buy companies that they believe are currently undervalued in the market, but whose worth they estimate will be recognized in the market valuations eventually.

What is Passive Fund Management?

When an investor invests in an actively managed mutual fund, he or she leaves the decision of investing to the fund manager. The fund manager is the decision-maker as to which company or instrument to invest in. Sometimes such decisions may be right, rewarding the investor handsomely. However, chances are that the decisions might go wrong or may not be right all the time which can lead to substantial losses for the investor. There are mutual funds that offer Index funds whose objective is to equal the return given by a select market index. Such funds follow a passive investment style. They do not analyse companies, markets, economic factors and then narrow down on stocks to invest in. Instead they prefer to invest in a portfolio of stocks that reflect a market index, such as the Nifty index. The returns generated by the index are the returns given by the fund. No attempt is made to try and beat the index. Research has shown that most fund managers are unable to constantly beat the market index year after year. Also it is not possible to identify which fund will beat the market index. Therefore, there is an element of going wrong in selecting a fund to invest in. This has lead to a huge interest in passively

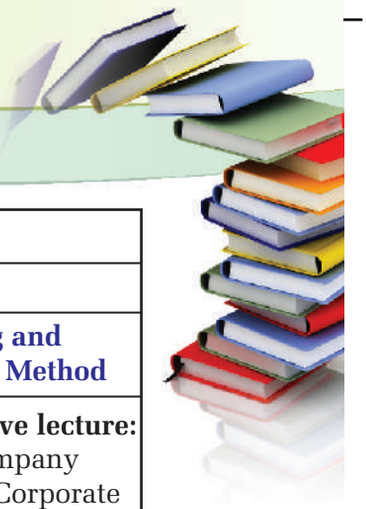


managed funds such as Index Funds where the choice of investments is not left to the discretion of the fund manager. Index Funds hold a diversified basket of securities which represents the index while at the same time since there is not much active turnover of the portfolio the cost of managing the fund also remains low. This gives a dual advantage to the investor of having a diversified portfolio while at the same time having low expenses in fund.

What is an ETF?

Think of an exchange-traded fund as a mutual fund that trades like a stock. Just like an index fund, an ETF represents a basket of stocks that reflect an index such as the Nifty. An ETF, however, isn't a mutual fund; it trades just like any other company on a stock exchange. Unlike a mutual fund that has its net-asset value (NAV) calculated at the end of each trading day, an ETF's price changes throughout the day, fluctuating with supply and demand. It is important to remember that while ETFs attempt to replicate the return on indexes, there is no guarantee that they will do so exactly.

By owning an ETF, you get the diversification of an index fund plus the flexibility of a stock. Because, ETFs trade like stocks, you can short sell them, buy them on margin and purchase as little as one share. Another advantage is that the expense ratios of most ETFs are lower than that of the average mutual fund. When buying and selling ETFs, you pay your broker the same commission that you'd pay on any regular trade.



Unit Code: 8	Unit Title: Miscellaneous			
	Session-1 : Corporate Actions			
Location: Class Room, AMC, Mutual Fund Branch Office	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Distinguish b/w Cash benefits and Stock Benefits Tools of Corporate Actions	Procedure to announce Corporate Actions by the Companies. Who is liable for Corporate Actions	Ex/Cum Benefits How Corporate Actions affect the Market or Company.	**Interactive lecture:** Why Company provide Corporate Benefits. **Activity:** Calculate all Corporate Benefits.
	Session-2 : Index			
	Describe Nifty / Sensex How Nifty Calculate?	How Nifty well is Diversified and Highly Liquid. Index Application	Different sectors in Nifty Index Professional Management	**Interactive lecture:** Nifty Behavior and uses **Activity:** Presentation on Nifty - 50
	Session-3 : Clearing & Settlement			
	Clearing Corporation of NSE Rolling Settlement	Pay in / Pay out Procedure Role and Reason of Auction	Benefits of Clearing & Settlement Reduction of Rolling Settlement Cycle	**Interactive lecture:** How NSCCL Eliminate the Risk of Counter Party **Activity:** Visit to clearing Deptt. Of Exchange.
	Session-4 : Post Market Activities			
	Ex/Cum No Delivery Period BC/RD Ex-Date IPF Arbitration	Entitle or Not Entitle to receive Corporate Benefits Objection in case of Default	Investor Protection by the Exchange and SEBI Claim against Defaults	**Interactive lecture:** Procedure of in Arbitration NSE **Activity:** Discuss the Arbitration Cases

Chapter 8

MISCELLANEOUS

8.1 Corporate Actions

What are Corporate Actions?

Corporate actions tend to have a bearing on the price of a security. When a company announces a corporate action, it is initiating a process that will bring actual change to its securities either in terms of number of shares increasing in the hands on the shareholders or a change to the face value of the security or receiving shares of a new company by the shareholders as in the case of merger or acquisition etc. By understanding these different types of processes and their effects, an investor can have a clearer picture of what a corporate action indicates about a company's financial affairs and how that action will influence the company's share price and performance.

Corporate actions are typically agreed upon by a company's Board of Directors and authorized by the shareholders. Some examples are dividends, stock splits, rights issues, bonus issues etc.

What is meant by 'Dividend' declared by companies?

Returns received by investors in equities come in two forms a) growth in the value (market price) of the share and b) dividends. Dividend is distribution of part of a company's earnings to shareholders, usually twice a year in the form of a final dividend and an interim dividend. Dividend is therefore a source of income for the shareholder. Normally, the dividend is expressed on a 'per share' basis, for instance - Rs.3 per share. This makes it easy to see how much of the company's profits are being paid out, and how much are being retained by the company to plough back into the business. So a company that has earnings per share in the year of Rs.6 and pays out Rs.3 per share as a dividend is passing half of its profits on to shareholders and retaining the other half. Directors of a company have discretion as to how much of a dividend to declare or whether they should pay any dividend at all.

What is meant by Dividend yield?

Dividend yield gives the relationship between the current price of a stock and the dividend paid by its' issuing company during the last 12 months. It is calculated by aggregating past year's dividend and dividing it by the current stock price.

Example:

ABC Co.

Share price: Rs.360

Annual dividend: Rs.10

Dividend yield: 2.77% (10/360)

Historically, a higher dividend yield has been considered to be desirable among investors. A high dividend yield is considered to be evidence that a stock is underpriced, whereas a low dividend yield is considered evidence that the stock is overpriced. A note of caution here though. There have been companies in the past which had a record of high dividend yield, only to go bust in

later years. Dividend yield therefore can be only one of the factors in determining future performance of a company.

What is a Stock Split?

A stock split is a corporate action which splits the existing shares of a particular face value into smaller denominations so that the number of shares increase, however, the market capitalization or the value of shares held by the investors post split remains the same as that before the split. For e.g. If a company has issued 1,00,00,000 shares with a face value of Rs.10 and the current market price being Rs.100, a 2-for-l stock split would reduce the face value of the shares to 5 and increase the number of the company's outstanding shares to 2,00,00,000, (1,00,00,000*(10/5)). Consequently, the share price would also halve to Rs.50 so that the market capitalization or the value shares held by an investor remains unchanged. It is the same thing as exchanging a Rs. 100 note for two Rs.50 notes; the value remains the same.

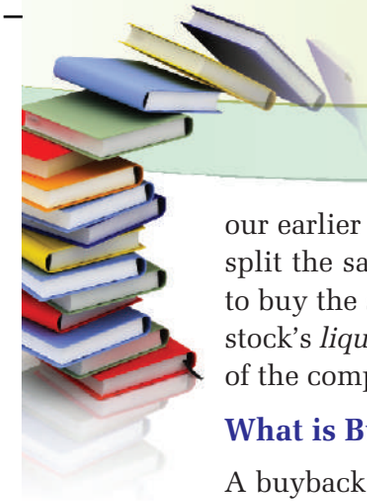
Let us see the impact of this on the share holder: - Let's say company ABC is trading at Rs.40 and has 100 million shares issued, which gives it a market capitalization of Rs.4000 million (Rs. 40 x 100 million shares). An investor holds 400 shares of the company valued at Rs. 16,000. The company then decides to implement a 4-for-l stock split (i.e. a shareholder holding 1 share, will now hold 4 shares). For each share shareholders currently own, they receive three additional shares. The investor will therefore hold 1600 shares. So the investor gains 3 additional shares for each share held. But this does not impact the value of the shares held by the investor since post split, the price of the stock is also split by 25% (l/4th), from Rs.40 to Rs.10, therefore the investor continues to hold Rs.16,000 worth of shares. Notice that the market capitalization stays the same - it has increased the amount of stocks outstanding to 400 million while simultaneously reducing the stock price by 25% to Rs.10 for a capitalization of Rs. 4000 million. The true value of the company hasn't changed.

An easy way to determine the new stock price is to divide the previous stock price by the split ratio. In the case of our example, divide Rs. 40 by 4 and we get the new trading price of Rs. 10. If a stock were to split 3-for-2, we'd do the same thing: 40/(3/2) = 40/1.5 = Rs. 26.60.

2-for-1 Split	Pre-Split	Post-Split
No. of shares	100 mill.	200 mill.
Share Price	Rs. 40	Rs. 20
Market Cap.	Rs. 4000 mill.	Rs. 4000 mill.
4-for-1		
No. of shares	100 mill.	400 mill.
Share Price	Rs. 40	Rs. 10
Market Cap.	Rs. 4000 mill.	Rs. 4000 mill.

Why do companies announce Stock Split?

If the value of the stock doesn't change, what motivates a company to split its stock? Though there are no theoretical reasons in financial literature to indicate the need for a stock split, generally, there are mainly two important reasons. As the price of a security gets higher and higher, some investors may feel the price is too high for them to buy, or small investors may feel it is unaffordable. Splitting the stock brings the share price down to a more "attractive" level. In



our earlier example to buy 1 share of company ABC you need Rs. 40 pre-split, but after the stock split the same number of shares can be bought for Rs.10, making it attractive for more investors to buy the share. This leads us to the second reason. Splitting a stock may lead to increase in the stock's *liquidity,* since more investors are able to afford the share and the total outstanding shares of the company have also increased in the market.

What is Buyback of Shares?

A buyback can be seen as a method for company to invest in itself by buying shares from other investors in the market. Buybacks reduce the number of shares outstanding in the market. Buy back is done by the company with the purpose to improve the liquidity in its shares and enhance the shareholders' wealth. Under the SEBI (Buy Back of Securities) Regulation, 1998, a company is permitted to buy back its share from:

a) Existing shareholders on a proportionate basis through the offer document.

b) Open market through stock exchanges using book building process.

c) Shareholders holding odd lot shares.

The company has to disclose the pre and post-buyback holding of the promoters. To ensure completion of the buyback process speedily, the regulations have stipulated time limit for each step. For example, in the cases of purchases through stock exchanges, an offer for buy back should not remain open for more than 30 days. The verification of shares received in buy back has to be completed within 15 days of the closure of the offer. The payments for accepted securities has to be made within 7 days of the completion of verification and bought back shares have to be extinguished within 7 days of the date of the payment.

8.2 Index

What is the Nifty index?

CNX Nifty (Nifty), is a scientifically developed, 50 stock index, reflecting accurately the market movement of the Indian markets. It comprises of some of the largest and most liquid stocks traded on the NSE. It is maintained by India Index Services & Products Ltd. (IISL) which is a group company of NSE. Nifty is the barometer of the Indian markets.

8.3 Clearing & Settlement and Redressal

What is a Clearing Corporation?

A Clearing Corporation is a part of an exchange or a separate entity and performs three functions, namely, it clears and settles all transactions, i.e. completes the process of receiving and delivering shares/funds to the buyers and sellers in the market, it provides financial guarantee for all transactions executed on the exchange and provides risk management functions. National Securities Clearing Corporation Limited (NSCCL), a 100% subsidiary of NSE, performs the role of a Clearing Corporation for transactions executed on the NSE.

What is Rolling Settlement?

Under rolling settlement all open positions at the end of the day mandatorily result in payment/ delivery 'n' days later. Currently trades in rolling settlement are settled on T+2 basis where T is the trade day. For example, a trade executed on Monday is mandatorily settled by Wednesday

(considering two working days from the trade day). The funds and securities pay-in and pay-out are carried out on T+2 days.

What is Pay-in and Pay-out?

Pay-in day is the day when the securities sold are delivered to the exchange by the sellers and funds for the securities purchased are made available to the exchange by the buyers.

Pay-out day is the day the securities purchased are delivered to the buyers and the funds for the securities sold are given to the sellers by the exchange.

At present the pay-in and pay-out happens on the 2nd working day after the trade is executed on the stock exchange.

What is an Auction?

On account of non-delivery of securities by the trading member on the pay-in day, the securities are put up for auction by the Exchange. This ensures that the buying trading member receives the securities. The Exchange purchases the requisite quantity in auction market and gives them to the buying trading member.

What is a Book-closure/Record date?

Book closure and record date help a company determine exactly the shareholders of a company as on a given date. Book closure refers to the closing of the register of the names of investors in the records of a company. Companies announce book closure dates from time to time. The benefits of dividends, bonus issues, rights issue accrue to investors whose name appears on the company's records as on a given date which is known as the record date and is declared in advance by the company so that buyers have enough time to buy the shares, get them registered in the books of the company and become entitled for the benefits such as bonus, rights, dividends etc. With the depositories now in place, the buyers need not send shares physically to the companies for registration. This is taken care by the depository since they have the records of investor holdings as on a particular date electronically with them.

What is a No-delivery period?

Whenever a company announces a book closure or record date, the exchange sets up a no-delivery period for that security. During this period only trading is permitted in the security. However, these trades are settled only after the no-delivery period is over. This is done to ensure that investor's entitlement for the corporate benefit is clearly determined.

What is an Ex-dividend date?

The date on or after which a security begins trading without the dividend included in the price, i.e. buyers of the shares will no longer be entitled for the dividend which has been declared recently by the company, in case they buy on or after the ex-dividend date.

What is an Ex-date?

The first day of the no-delivery period is the ex-date. If there is any corporate benefits such as rights, bonus, dividend announced for which book closure/record date is fixed, the buyer of the shares on or after the ex-date will not be eligible for the benefits.

What recourses are available to investor/client for redressing his grievances?

You can lodge complaint with the Investor Grievances Cell (IGC) of the Exchange against brokers on certain trade disputes or non-receipt of payment/securities. IGC takes up complaints in respect of trades executed on the NSE, through the NSE trading member or SEBI registered sub-broker of a NSE trading member and trades pertaining to companies traded on NSE.

What is Arbitration?

Arbitration is an alternative dispute resolution mechanism provided by a stock exchange for resolving disputes between the trading members and their clients in respect of trades done on the exchange. If no amicable settlement could be reached through the normal grievance redressal mechanism of the stock exchange, then you can make application for reference to Arbitration under the Bye-Laws of the concerned stock exchange.

What is an Investor Protection Fund?

Investor Protection Fund (IPF) is maintained by NSE to make good investor claims, which may arise out of non-settlement of obligations by the trading member, who has been declared a defaulter, in respect of trades executed on the Exchange. The IPF is utilised to settle claims of such investors where the trading member through whom the investor has dealt has been declared a defaulter. Payments out of the IPF may include claims arising of non payment/non receipt of securities by the investor from the trading member who has been declared a defaulter. The maximum amount of claim payable from the IPF to the investor (where the trading member through whom the investor has dealt is declared a defaulter) is Rs.10 lakh.

Unit Code: 9	Unit Title: Concepts & Modes of Analysis			
	Session-1 : Time Value of Money			
Location: Class Room, Maths Lab, FMM Lab	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Simple Interest Compound Interest Effective Annual Return	Analysis of Interest High Return method of Calculation	Comparison between different methods of Returns (Interest)	**Interactive lecture:** Formulation of Effective Annual Return **Activity:** Practice through Log Book and Scientific Calculator
	Session-2 : Annual Report			
	Identify ❑ Income Statement ❑ Position Statement ❑ Fund Sources ❑ CA/ CL	Tools of Income and Position Statement Distinguish b/w Current Liabilities Current Assets	Study Annual Report of any Company	**Interactive lecture:** Draw Income and Position Statement. **Activity:** Frame the Procedure of Loan and its Requirements.
	Session-3 : Accounting terms and Technologies			
	Identify Secured and Unsecured Loans Net/Gross Blocks P/L Statement Fund Applications	Needs and Procedure of Loans Measure Blocks Calculation of Funds	Fund Requirements in the companies	**Interactive lecture:** Financial Needs of the Companies **Activity:** Frame the Procedure of Loan and its Requirements.

Chapter 9

CONCEPTS & MODES OF ANALYSIS

What is Simple Interest?

Simple Interest: Simple Interest is the interest paid only on the principal amount borrowed. No interest is paid on the interest accrued during the term of the loan.

There are three components to calculate simple interest: principal, interest rate and time.

Formula for calculating simple interest:

I = Prt

Where,

I = interest

P = principal

r = interest rate (per year)

t = time (in years or fraction of a year)

Example:

Mr. X borrowed Rs. 10,000 from the bank to purchase a household item. He agreed to repay the amount in 8 months, plus simple interest at an interest rate of 10% per annum (year).

If he repays the full amount of Rs. 10,000 in eight months, the interest would be:
P = Rs. 10,000 r = 0.10 (10% per year) t = 8/12 (this denotes fraction of a year)

Applying the above formula, interest would be:
I = Rs. 10,000*(0.10)*(8/12) = Rs. 667.

This is the Simple Interest on the Rs. 10,000 loan taken by Mr. X for 8 months.

If he repays the amount of Rs. 10,000 in fifteen months, the only change is with time.

Therefore, his interest would be:
I = Rs. 10,000*(0.10)*(15/12) = Rs. 1,250

What is Compound Interest?

Compound Interest: Compound interest means that, the interest will include interest calculated on interest. The interest accrued on a principal amount is added back to the principal sum, and the whole amount is then treated as new principal, for the calculation of the interest for the next period.

For example, if an amount of Rs. 5,000 is invested for two years and the interest rate is 10%, compounded yearly:

- At the end of the first year the interest would be (Rs. 5,000 * 0.10) or Rs. 500.
- In the second year the interest rate of 10% will applied not only to Rs. 5,000 but also to the Rs. 500 interest of the first year. Thus, in the second year the interest would be (0.10 * Rs. 5,500) or Rs. 550.

For any loan or borrowing unless simple interest is stated, one should always assume interest is compounded. When compound interest is used we must always know how often the interest rate is calculated each year. Generally the interest rate is quoted annually. E.g. 10% per annum.

Compound interest may involve calculations for more than once a year, each using a new principal, i.e. (interest+principal). The first term we must understand in dealing with compound interest is conversion period. Conversion period refers to how often the interest is calculated over the term of the loan or investment. It must be determined for each year or fraction of a year.

E.g.: If the interest rate is compounded semiannually, then the number of conversion periods per year would be two. If the loan or deposit was for five years, then the number of conversion periods would be ten.

Formula for calculating Compound Interest:

$C = P(1+i)^n$

Where

C = amount

P = principal

i = Interest rate per conversion period

n = total number of conversion periods

Example:

Mr. X invested Rs. 10,000 for five years at an interest rate of 7.5% compounded quarterly

P = Rs.10,000

i = 0.075/4, or 0.01875

n = 4 * 5, or 20, conversion periods over the five years

Therefore, the amount, C, is:

C = Rs.10,000(1 + 0.01875) ₹20

= Rs.10,000 x 1.449948

= Rs.14,499.48

So at the end of five years Mr. X would earn Rs.4,499.48 (Rs.14,499.48 -Rs.10,000) as interest. This is also called as Compounding.

Compounding plays a very important role in investment since earning a simple interest and earning an interest on interest makes the amount received at the end of the period for the two cases significantly different.

If Mr. X had invested this amount for five years at the same interest rate offering the simple interest option, then the amount that he would earn is calculated by applying the following formula:

S = P (1 + rt)

P = 10,000

r = 0.075

t = 5

Thus,

S = Rs. 10,000[1+0.075(5)]

= Rs. 13,750

Here, the simple interest earned is Rs. 3,750.

A comparison of the interest amounts calculated under both the method indicates that Mr. X would have earned Rs.749.48 (Rs. 4,499.48 - Rs. 3,750) or nearly 20% more under the compound interest method than under the simple interest method.

Simply put, compounding refers to the re-investment of income at the same rate of return to constantly grow the principal amount, year after year. Should one care too much whether the rate of return is 5% or 15%? The fact is that with compounding, the higher the rate of return, more is the income which keeps getting added back to the principal regularly generating higher rates of return year after year.

The table below shows you how a single investment of Rs. 10,000 will grow at various rates of return with compounding. 5% is what you might get by leaving your money in a savings bank account, 10% is typically the rate of return you could expect from a one-year company fixed deposit, 15% - 20% or more is what you might get if you prudently invest in mutual funds or equity shares.

The Impact of Power of Compounding:

The impact of the power of compounding with different rates of return and different time periods:

At end of Year	5%	10%	15%	20%
1	Rs 10500	Rs 11000	Rs 11500	Rs 12000
5	Rs 12800	Rs 16100	Rs 20100	Rs 24900
10	Rs 16300	Rs 25900	Rs 40500	Rs 61900
15	Rs 20800	Rs 41800	Rs 81400	Rs 154100
25	Rs 33900	Rs 1,08300	Rs 3,29200	Rs 9,54,000

What is meant by the Time Value of Money?

Money has time value. The idea behind time value of money is that a rupee now is worth more than rupee in the future. The relationship between value of a rupee today and value of a rupee in future is known as 'Time Value of Money'. A rupee received now can earn interest in future. An amount invested today has more value than the same amount invested at a later date because it can utilize the power of compounding. Compounding is the process by which interest is earned on interest. When a principal amount is invested, interest is earned on the principal during the first period or year. In the second period or year, interest is earned on the original principal plus the interest earned in the first period. Over time, this reinvestment process can help an amount to grow significantly.

Let us take an example:

Suppose you are given two options:

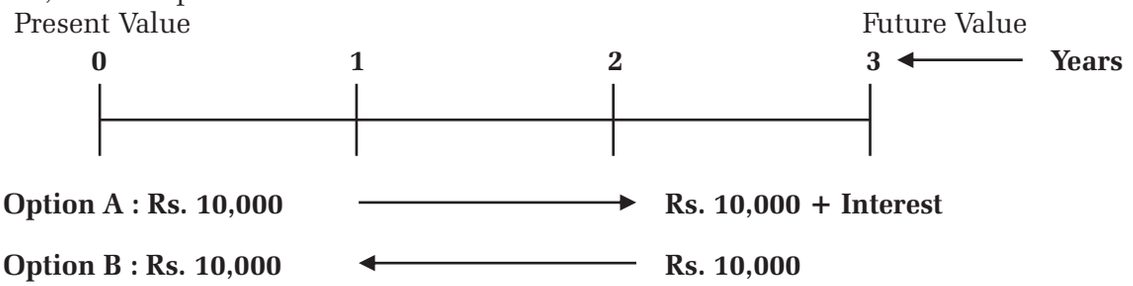
(A) Receive Rs. 10,000 now or

(B) Receive Rs. 10,000 after three years.

Which of the options would you choose?

Rationally, you would choose to receive the Rs.10,000 now instead of waiting for three years to get the same amount. So, the time value of money demonstrates that, all things being equal, it is better to have money now rather than later.

Back to our example: by receiving Rs.10,000 today, you are poised to increase the *future value* of your money by investing and gaining interest over a period of time. For option B, you don't have time on your side, and the payment received in three years would be your future value. To illustrate, we have provided a timeline:



If you are choosing option A, your future value will be Rs.10,000 plus any interest acquired over the three years. The future value for option B, on the other hand, would only be Rs. 10,000. This clearly illustrates that value of money received today is worth more than the same amount received in future since the amount can be invested today and generate returns.

Let us take an another example:

If you choose option A and invest the total amount at a simple annual rate of 5%, the future value of your investment at the end of the first year is Rs. 10,500, which is calculated by multiplying the principal amount of Rs.10,000 by the interest rate of 5% and then adding the interest gained to the principal amount.

Thus, Future value of investment at end of first year:

= ((Rs.10,000 X (5/100)) + Rs.10,000

= (Rs.10,000 X 0.050) + Rs.10,000

= Rs.10,500

You can also calculate the total amount of a one-year investment with a simple modification of the above equation:

Original equation: (Rs.10,000 x 0.050) + Rs.10,000 = Rs.10,500

Modified formula: Rs.10,000 x [(1 x 0.050) + 1] = Rs.10,500

Final equation: Rs. 10,000 x (0.050 + 1) = Rs. 10,500

Which can also be written as:

$S = P (r+ 1)$

Where,

S = amount received at the end of period

P = principal amount

r = interest rate (per year)

This formula denotes the future value (S) of an amount invested (P) at a simple interest of (r) for a period of 1 year.

How is time value of money computed?

The time value of money may be computed in the following circumstances:

1. Future value of a single cash flow
2. Future value of an annuity
3. Present value of a single cash flow
4. Present value of an annuity

1. Future Value of a Single Cash Flow

For a given present value (PV) of money, future value of money (FV) after a period M:' for which compounding is done at an interest rate of V, is given by the equation

$$FV = PV (1+r)^t$$

This assumes that compounding is done at discrete intervals. However, in case of continuous compounding, the future value is determined using the formula

$$FV = PV * e^{rt}$$

Where 'e' is a mathematical function called 'exponential' the value of exponential (e) = 2.7183. The compounding factor is calculated by taking natural logarithm (log to the base of 2.7183).

Example 1: Calculate the value of a deposit of Rs. 2,000 made today, 3 years hence if the interest rate is 10%.

By discrete compounding:

$FV = 2,000 * (1+0.10)^3 = 2,000 * (1.1)^3 = 2,000 * 1.331 =$ Rs. 2,662

By continuous compounding:

$FV = 2,000 * e (\circ_^{10} * 3) = 2,000 * 1.349862 =$ Rs.2699.72

2. Future Value of an Annuity

An annuity is a stream of equal annual cash flows. The future value (FVA) of a uniform cash flow (CF) made at the end of each period till the time of maturity 't' for which compounding is done at the rate V is calculated as follows:

$$FVA = CF* (1+r)^{t-1} + CF* (1+r)^{t-2} + ... + CF* (1+r)^1 + CF$$

$$= CF \left[\frac{(1+r)^t - 1}{r} \right]$$

The term $\left[\frac{(1+r)^t - 1}{r}\right]$ is referred as the Future Value Interest factor for an annuity (FVIFA). The same can be applied in a variety of contexts. For e.g. to know accumulated amount after a certain period, to know how much to save annually to reach the targeted amount, to know the interest rate etc.

Example 1: Suppose, you deposit Rs.3,000 annually in a bank for 5 years and your deposits earn a compound interest rate of 10 per cent, what will be value of this series of deposits (an annuity) at the end of 5 years? Assume that each deposit occurs at the end of the year.

Future value of this annuity is:

$= Rs.3000*(1.10)^4 + Rs.3000*(1.10)^3 + Rs.3000*(1.10)^2 + Rs.3000*(1.10) + Rs.3000$

$= Rs.3000*(1.4641)+Rs.3000*(1.3310)+Rs.3000*(1.2100)+Rs.3000*(1.10)+ Rs.3000$

$= Rs. 18315.30$

3. Present Value of a Single Cash Flow

Present value of (PV) of the future sum (FV) to be received after a period T for which discounting is done at an interest rate of V, is given by the equation

In case of discrete discounting: $PV = FV / (1+r)^1$

Example 1: What is the present value of Rs.5,000 payable 3 years hence, if the interest rate is 10 % p.a.

$PV = 5000/ (1.10)^3$ i.e. = Rs.3756.57 In case of continuous discounting: $PV = FV * e^{-rt}$

Example 2: What is the present value of Rs. 10,000 receivable after 2 years at a discount rate of 10% under continuous discounting?

Present Value = 10,000/(exp ₹(0.1*2)) = Rs. 8187.297

4. Present Value of an Annuity

The present value of annuity is the sum of the present values of all the cash inflows of this annuity.

Present value of an annuity (in case of discrete discounting)

$PVA = FV [\{(1+r)^1 - 1 \}/ \{r * (1+r)^1\}]$

The term $[(1+r)^t - 1/r* (1+r)^t)]$ is referred as the Present Value Interest factor for an annuity (PVIFA).

Present value of an annuity (in case of continuous discounting) is calculated as:

$PV_a = FV_a * (1-e^{-rt})/r$

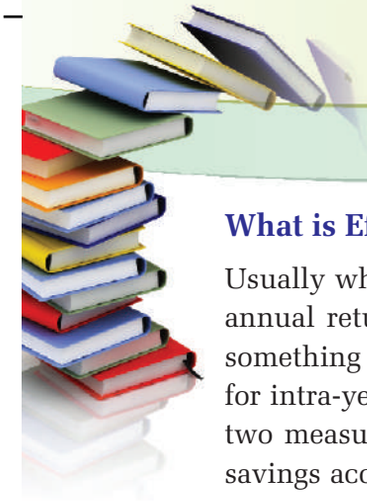
Example 1: What is the present value of Rs. 2000/- received at the end of each year for 3 continuous years

$= 2000*[1/1.10]+2000*[1/1.10]$ ₹$2+2000*[1/1.10]$ ₹3

$= 2000*0.9091+2000*0.8264+2000*0.7513$

$= 1818.181818+1652.892562+1502.629602$

$= Rs. 4973.704$



What is Effective Annual return?

Usually while applying for a fixed deposit or a bond it is stated in the application form, that the annual return (interest) of an investment is 10%, but the effective annual return mentioned is something more, 10.38%. Why the difference? Essentially, the effective annual return accounts for intra-year compounding and the stated annual return does not. The difference between these two measures is best illustrated with an example. Suppose the stated annual interest rate on a savings account is 10%, and say you put Rs 1,000 into this savings account. After one year, your money would grow to Rs 1,100. But, if the account has a quarterly compounding feature, your effective rate of return will be higher than 10%. After the first quarter, or first three months, your savings would grow to Rs 1,025. Then, in the second quarter, the effect of compounding would become apparent: you would receive another Rs 25 in interest on the original Rs 1,000, but you would also receive an additional Rs 0.63 from the Rs. 25 that was paid after the first quarter. In other words, the interest earned in each quarter will increase the interest earned in subsequent quarters. By the end of the year, the power of quarterly compounding would give you a total of Rs 1,103.80. So, although the stated annual interest rate is 10%, because of quarterly compounding, the effective rate of return is 10.38%. The difference of 0.38% may appear insignificant, but it can be huge when you're dealing with large numbers. 0.38% of Rs. 100,000 is Rs 380! Another thing to consider is that compounding does not necessarily occur quarterly, or only four times a year, as it does in the example above. There are accounts that compound monthly, and even some that compound daily. And, as our example showed, the frequency with which interest is paid (compounded) will have an effect on effective rate of return.

How to go about systematically analyzing a company?

You must look for the following to make the right analysis:

Industry Analysis: Companies producing similar products are subset (form a part) of an Industry/Sector. For example, National Hydroelectric Power Company (NHPC) Ltd., National Thermal Power Company (NTPC) Ltd., Tata Power Company (TPC) Ltd. etc. belong to the Power Sector/Industry of India. It is very important to see how the industry to which the company belongs is faring. Specifics like effect of Government policy, future demand of its products etc. need to be checked. At times prospects of an industry may change drastically by any alterations in business environment. For instance, devaluation of rupee may brighten prospects of all export oriented companies. Investment analysts call this as *Industry Analysis.*

Corporate Analysis: How has the company been faring over the past few years? Seek information on its current operations, managerial capabilities, growth plans, its past performance vis-a-vis its competitors etc. This is known as *Corporate Analysis.*

Financial Analysis: If performance of an industry as well as of the company seems good, then check if at the current price, the share is a good buy. For this look at the financial performance of the company and certain key financial parameters like Earnings Per Share (EPS), P/E ratio, current size of equity etc. for arriving at the estimated future price. This is termed as *Financial Analysis.* For that you need to understand financial statements of a company i.e. Balance Sheet and Profit and Loss Account contained in the Annual Report of a company.

What is an Annual Report?

An annual report is a formal financial statement issued yearly by a corporate. The annual report shows assets, liabilities, revenues, expenses and earnings - how the company stood at the close of the business year, how it fared profit-wise during the year, as well as other information of interest to shareholders. Companies publish annual reports and send abridged versions to shareholders free of cost. A detailed annual report is sent on request. Remember an annual report of a company is the best source of information about the financial health of a company.

Which features of an Annual Report should one read carefully?

One must read an Annual Report with emphasis on the following:

1. Director's Report and Chairman's statement which are related to the current and future operational performance of a company.
2. Auditors' Report (including Annexure to the Auditors Report)
3. Profit and Loss Account.
4. Balance Sheet.
5. Notes to accounts attached to the Balance Sheet.

What is a Balance Sheet and a Profit and Loss Account Statement? What is the difference between Balance Sheet and Profit and Loss Account Statements of a company?

The Balance sheet of a company shows the financial position of the company **at a particular point of time.** The balance sheet of a company/firm, according to the Companies Act, 1956 should be either in the *account form* or the *report form.*

Balance Sheet: Account Form

Liabilities	**Assets**
Share Capital	Fixed Assets
Reserves and Surplus	Investments
Secured loans	Current Assets, loans and advances
Unsecured loans	Miscellaneous expenditure
Current liabilities and provisions	

Balance Sheet: Report Form

I. Sources of Funds

1. Shareholders' Funds
   (a) Share Capital
   (b) Reserves & surplus

2. Loan Funds

   (a) Secured loans

   (b) Unsecured loans

II. **Application of Funds**

   (a) Fixed Assets

   (b) Investments

   (c) Current Assets, loans and advances

   Less: Current liabilities and provisions

   Net current assets

   (d) Miscellaneous expenditure and losses

The Profit and Loss account (Income Statement), on the other hand, shows the financial performance of the company/firm **over a period of time.** It indicates the revenues and expenses during particular period of time. The period of time is an accounting period/year, April-March. The accounting report summarizes the revenue items, the expense items, and the difference between them (net income) for an accounting period.

How to interpret Balance Sheet and Profit and Loss Account of a company?

Let's start with Balance Sheet. The Box-1 gives the balance sheet of XYZ Ltd. company as on 31st March 2005. Let us understand the balance sheet shown in the Box-1.

BOX-1

XYZ COMPANY LTD.

Balance Sheet as on 31st March, 2005				As at 31st March, 2005	As at 31st March, 2004
SOURCES OF FUNDS	**Schedule**	**Page**	**Rs. Cr**	**Rs. Cr**	**Rs. Cr**
1 SHAREHOLDERS' FUNDS					
(a) Capital	1	19	103.87		104.44
(b) Reserves and Surplus	2	20	479.21		387.70
				583.08	483.14
2 LOAN FUNDS					
(a) Secured	3	21	353.34		387.76
(b) Unsecured	4	21	129.89		101.07
				483.23	488.83
3 TOTAL FUNDS EMPLOYED				**1066.31**	**971.97**
APPLICATION OF FUNDS					
4 FIXED ASSETS					
(a) Gross Block	5	22	946.84		870.44
(b) Less: Depreciation			482.19		430.70
(c) Net Block			464.65		439.74
(d) Capital Work in Progress			62.10		44.44
				526.75	484.18
5 INVESTMENTS	6	23		108.58	303.48
6 CURRENT ASSETS, LOANS AND ADVANCES					
(a) Inventories	7	24	446.34		350.25
(b) Sundry Debtors	8	24	458.47		300.32
(c) Cash and Bank Balances	9	25	66.03		5.67
(d) Loans and Advances	10	25	194.36		110.83
			1165.20		767.07
7 Less: CURRENT LIABILITIES AND PROVISIONS					
(a) Current Liabilities	11	26	595.22		500.19
(b) Provisions	12	26	139.00		82.57
				734.22	582.76
8 NET CURRENT ASSETS [(6) less (7)]				430.98	184.31
9 TOTAL ASSETS (NET)				**1066.31**	**971.97**
10 NOTES TO BALANCE SHEET AND CONTINGENT LIABILITIES	13	27			
As per our report attached				For and on behalf of the Board.	
For A. SDF&CO.	XXXXX	AAAA		ASDFG	
Chartered Accountants,	Chairman	BBBB		LKJH	
Q.W.TYUR		CCCC		TYUB	
Partner.		REFGH		POIUY	Directors
For HIJKL	YYYY	NSDF			
Chartered Accountants,	Vice-Chairman and	QWER			
WERT	Managing Director	MNBV			
Partner.	ZZZZZZ				
Bombay 10th July, 2004	Secretary			Bombay, 28th June, 2004.	

The balance sheet of a company is a record showing sources of funds and their application for creating/building assets. However, since company's fund structure and asset position change everyday due to fund inflow and outflow, balance sheets are drawn on a specific date, say 31st March.

What do these sources of funds represent?

As shown in a sample balance sheet in Box-1, there are two sources of funds:

(a) **Shareholders' Fund** (also known as **Net Worth)** is the fund coming from the owners of the company; and

(b) **Loan Fund** is the fund borrowed from outsiders.

When a company/firm starts operations, its owners, called shareholders, contribute funds called **Share Capital.** Note that in Box-1 XYZ COMPANY LTD.'s capital in 2005 was Rs. 103.87 crore. The shareholders being the owners, share part of the profit of the company, as dividend. Share capital has been further divided into **equity capital** and **preference capital.** Equity capital does not have fixed rate of dividend. The preference capital represents contribution of preference shareholders and has fixed rate of dividend.

After distributing dividends, a part of the profit is retained by the company for meeting fund requirements in future. The retained profits accumulated over the years are called **reserves and surplus,** which are shareholders' property. In case of XYZ COMPANY LTD., note that the reserves and surplus increased from Rs. 387.70 crore in 2004 to Rs. 479.21 crore in 2005.

What is the difference between Equity shareholders and Preferential shareholders?

Equity Shareholders are supposed to be the owners of the company, who therefore, have right to get dividend, as declared, and a right to vote in the Annual General Meeting for passing any resolution.

The act defines a **preference share** as that part of share capital of the Company which enjoys preferential right as to: (a) payment of dividend at a fixed rate during the life time of the Company; and (b) the return of capital on winding up of the Company.

But Preference shares cannot be traded, unlike equity shares, and are redeemed after a pre-decided period. Also, **Preferential Shareholders** do not have voting rights.

What do terms like authorized, issued, subscribed, called up and paid up capital mean?

- **Authorized capital** is the maximum capital that a company is authorized to raise.
- **Issued capital** is that part of the authorized capital which is offered by the company for being subscribed by members of the public or anybody.
- **Subscribed capital** is that part of the issued capital which is subscribed (accepted) by the public.
- **Called up capital** is a part of subscribed capital which has been called up by the company for payment. For example, if 10,000 shares of Rs. 100 each have been subscribed by the public and of which Rs. 50 per share has been called up. Then the subscribed capital of the Company works out to Rs. 1,00,000 of which the called up capital of the Company is Rs. 50,0000.

Paid up capital refers to that part of the called up capital which has been actually paid by the shareholders. Some of the shareholders might have defaulted in paying the called up money. Such defaulted amount is called as arrears. From the called up capital, calls in arrears is deducted to obtain the paid up capital.

What is the difference between secured and unsecured loans under Loan Funds?

Secured loans are the borrowings against the security i.e. against mortgaging some immovable property or hypothecating/pledging some movable property of the company. This is known as creation of charge, which safeguards creditors in the event of any default on the part of the company. They are in the form of debentures, loans from financial institutions and loans from commercial banks. Notice that in case of the XYZ COMPANY LTQ, it was Rs.353.34 crore as on March 31, 2005. The unsecured loans are other *'short term borrowings without a specific security. They are fixed deposits, loans and advances from promoters, inter-corporate borrowings, and unsecured loans from the banks. Such borrowings amount to Rs.129.89 crore in case of the XYZ COMPANY LTD.

What is meant by application of funds?

The funds collected by a company from the owners and outsiders are employed to create following assets:

Fixed Assets: These assets are acquired for long-terms and are used for business operation, but not meant for resale. The land and buildings, plant, machinery, patents, and copyrights are the fixed assets. In case of the XYZ COMPANY LTD., fixed assets are worth Rs. 526.75 crore.

Investments: The investments are the financial securities created by investing surplus funds into any non-business related avenues for getting income either for long-term or short-term. Thus incomes and gains from the investments are not from the business operations.

Current Assets, Loans, and Advances: This consists of cash and other resources which can be converted into cash during the business operation. Current assets are held for a short-term period for meeting day-to day operational expenditure. The current assets are in the form of raw materials, finished goods, cash, debtors, inventories, loans and advances, and pre-paid expenses. For the XYZ COMPANY LTD., current assets are worth Rs. 1165.20 crore.

Miscellaneous Expenditures and Losses: The miscellaneous expenditures represent certain outlays such as preliminary expenses and pre-operative expenses not written off. Though loss indicates a decrease in the owners' equity, the share capital can not be reduced with loss. Instead, share capital and losses are shown separately on the liabilities side and assets side of the balance sheet, respectively.

What do the sub-headings under the Fixed Assets like 'Gross block' 'Depreciation', 'Net Block' and Capital-Work in Progress mean?

The total value of acquiring all fixed assets (even though at different points of time) is called **'Gross Block'** or **"Gross Fixed Asset'.**

As per accounting convention, all fixed assets except land have a fixed life. It is assumed that every year the worth of an asset falls due to usage. This reduction in value is called **'Depreciation'.** The Companies Act 1956 stipulates different rates of depreciation for different types of assets and different methods calculating depreciation, namely, Straight Line Method

(constant annual method) and Written Down Value Method (depreciation rate decreases over a period of time).

The worth of the fixed assets after providing for depreciation is called **'Net Block'.** In case of the XYZ COMPANY LTD., Net Block was Rs. 464.65 crore as on March 31, 2005.

Gross Block-Depreciation = Net Block Rs. 946.84- Rs. 482.19 = Rs. 464.65

The capital/funds used for a new plant under erection, a machine yet to be commissioned etc. are examples of 'Capital Work in Progress', which also has to be taken into account while calculating the fixed assets as it will be converted into gross block soon.

What are Current Liabilities and Provisions and Net Current Assets in the balance sheet?

A company may receive many of its daily services for which it does not have to pay immediately like for raw materials, goods and services brought on credit. A company may also accept advances from the customer. The company thus has a liability to pay though the payment is deferred. These are known as **"Current Liabilities'.** Similarly the company may have to provide for certain other expenses (though not required to be paid immediately) like dividend to shareholders, payment of tax etc. These are called **'Provisions'.** In short, Current Liabilities and Provisions are amounts due to the suppliers of goods and services brought on credit, advances payments received, accrued expenses, unclaimed dividend, provisions for taxes, dividends, gratuity, pensions, etc.

Current Liabilities and Provisions, therefore, reduce the burden of day-today expenditure on current assets by deferring some of the payments. For daily operations the company requires funds equal to the current assets less the current liabilities. This amount is called **"Net Current Assets'** or **"Net Working Capital'.** In case of the XYZ COMPANY LTD., Net Current Asset figure of Rs.430.98 cr. has been arrived at by deducting Current Liabilities (Rs.595.22 cr.) and Provisions (Rs.139 cr.) from Current Assets worth Rs. 1165.20 crore.

How is balance sheet summarized?

A balance sheet indicates matching of *sources of funds* with *application of funds.* In case of the XYZ Company Ltd., Total Funds Employed' to the tune of Rs. 1066.31 cr. are from the said two Sources of Funds-Shareholders Funds and Loan Funds. These funds have been utilized to fund Total (Net) Assets of Rs.1066.31 cr. that consist of Fixed Assets (Rs.526.75 cr.), Investments (Rs.108.58 cr.) and Net Current Assets (Rs.430.98 cr.).

Thus in a balance sheet,

Total Capital Employed = Net Assets.

What does a Profit and Loss Account statement consists of?

A Profit and Loss Account shows how much profit or loss has been incurred by a company from its income after providing for all its expenditure within a financial year. One may also know how the profit available for appropriation is arrived at by using profit after tax as well as portion of reserves. Further, it shows the profit appropriation towards dividends, general reserve and balance carried to the balance sheet.

The Box-2 exhibits Profit and Loss Account of XYZ Company Ltd. Item-1 represents income, Items from 2 to 6 show various expenditure items. Items from 7 to 12 show the profits available for appropriation and items 13 (a), (b), and (c) indicate appropriation of profits.

BOX-2

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2005

PARTICULARS	RUPEES (in crores)	RUPEES (in crores) As at 31st March, 2015	RUPEES (in crores) As at 31st March, 2015
INCOME			
1. Sale of products and other Income		2595.99	1969.10
EXPENDITURE			
2. Manufacturing and other Expenses	2275.37		1742.54
3. Depreciation	54.26		48.91
4. Interest	81.63		73.63
5. Expenditure transferred to Capital Accounts	49.82		(44.27)
6. Total Expenditure		2316.44	1820.81
PROFIT BEFORE TAX		234.55	148.29
7. Tax for the Year		92.5	45.75
PROFIT AFTER TAX		142.05	102.54
8. Investment allowance Reserve Account		4.66	3.55
9. Investment allowance (Utilised) Reserve written back		(15.2)	(11.2)
10. Debenture redemption Reserve		(0.57)	(0.57)
11. Capital redemption Reserve			
12. Balance brought forward from Previous Year		86.71	33.65
AMOUNT AVAILABLE FOR APPROPRIATIONS		217.65	127.97
13. Appropriations			
(a) Proposed Dividends*		41.54	31.26
(b) General Reserve		100	10
(c) Balance credited to Balance Sheet		76.11	86.71
		217.65	127.97

14. **NOTES TO PROFIT AND LOSS ACCOUNT**					
* Details as per Directors Report					
As per our report attached to the Balance Sheet		For and on behalf of the Board			
For XYZ & co.	PQR	AAA			
Chartered Accountants,	Chairman	BBB			
ABC		CCC			
Partner		DDD			Directors
For LMN & co.	GHI				
Chartered Accountants,	Vice-Chairman and				
DEF	Managing Director				
Partner	STU				
Mumbai, 10th July 2004	Secretary	Mumbai, 28th June 2004			

What should one look for in a Profit and Loss account?

For a company, the profit and loss statement is the most important document presented to the shareholders. Therefore, each company tries to give maximum stress on its representation/ misrepresentation. One should consider the following:

- Whether there is an overall improvement of sales as well as profits (operating, gross and net) over the similar period (half-yearly or annual) previous year. If so, the company's operational management is good.
- Check for the other income carefully, for here companies have the scope to manipulate. If the other income stems from dividend on the investments or interest from the loans and advances, it is good, because such income is steady. But if the other income is derived by selling any assets or land, be cautious since such income is not an annual occurrence.
- Also check for the increase of all expenditure items viz. raw material consumption, manpower cost and manufacturing, administrative and selling expenses. See whether the increases in these costs are more than the increase in sales. If so, it reveals the operating conditions are not conducive to making profits. Similarly, check whether ratio of these costs to sales could be contained over the previous year. If so, then the company's operations are efficient.
- Evaluate whether the company could make profit from its operations alone. For this you should calculate the profits of the company, after ignoring all other income except sales. If the profit so obtained is positive, the company is operationally profitable, which is a healthy sign.
- Scrutinize the depreciation as well as interest for any abnormal increase. The increase in depreciation is attributed to higher addition of fixed assets, which is good for long term operations of the company. High depreciation may suppress the net profits, but it's good for the cash flow. So instead of looking out for the net profits, check the cash profits and compare whether it has risen. High interest cost is always a cause of concern because the increased debt burden cannot be reduced in the short run.
- Calculate the earnings per share and the various ratios. In case of half yearly results, multiply half yearly earnings per share by 2 to get approximately the annualized earnings per share.

Unit Code: 10	Unit Title: Ratio Analysis			
	Session-1 : Liquidity Ratio			
Location: Class Room, Account Deptt, Company Visit, FMM Lab	**Learning Outcome**	**Knowledge Evaluation**	**Performance Evaluation**	**Teaching and Training Method**
	Current Ratio Acid Test Ratio Turnover Ratio Average Collection Period	Needs and Importance of Ratio Calculation	Ideal Ratios Analysis Ratios	**Interactive lecture:** Interpretation on the basis of Ratio Analysis **Activity:** Do Sums and Analysis
	Session-2 : Leverage/Capital Structure			
	Debt - Equity Ratio Debt - Total Asset Ratio Interest Coverage Ratio	Needs and Importance of Ratio Calculation	Ideal Ratio Analysis of Ratios	**Interactive lecture:** Interpretation on the basis of Ratio Analysis **Activity:** Do Sums and Analysis
	Session-3 : Profitability Ratio			
	GP Ratio NP Ratio Return on total Asset Return/on Capital Employed Return on Share holder Equity	Needs and Importance of Ratio Calculation	Ideal Ratio Analysis of Ratios	**Interactive lecture:** Interpretation on the Basis of Ratio Analysis **Activity:** Do Sums and Analysis

Chapter 10

RATIO ANALYSIS

Mere statistics/data presented in the different financial statements do not reveal the true picture of a financial position of a firm. Properly analyzed and interpreted financial statements can provide valuable insights into a firm's performance. To extract the information from the financial statements, a number of tools are used to analyse such statements. The most popular tool is the **Ratio Analysis.**

Financial ratios can be broadly classified into three groups: (I) Liquidity ratios, (II) Leverage/ Capital structure ratio, and (III) Profitability ratios.

(I) Liquidity Ratios:

Liquidity refers to the ability of a firm to meet its financial obligations in the short-term which is less than a year. Certain ratios, which indicate the liquidity of a firm, are (i) Current Ratio, (ii) Acid Test Ratio, (iii) Turnover Ratios. It is based upon the relationship between current assets and current liabilities.

(i) Current Ratio $= \frac{Current\ Assets}{Current\ Liabilities}$

The current ratio measures the ability of the firm to meet its current liabilities from the current assets. Higher the current ratio, greater the short-term solvency (i.e. larger is the amount of rupees available per rupee of liability).

(ii) Acid-test Ratio $= \frac{Quick\ Assets}{Current\ Liabilities}$

Quick assets are defined as current assets excluding inventories and prepaid expenses. The acid-test ratio is a measurement of firm's ability to convert its current assets quickly into cash in order to meet its current liabilities. Generally speaking 1:1 ratio is considered to be satisfactory.

(iii) Turnover Ratios:

Turnover ratios measure how quickly certain current assets are converted into cash or how efficiently the assets are employed by a firm. The important turnover ratios are:

Inventory Turnover Ratio, Debtors Turnover Ratio, Average Collection Period, Fixed Assets Turnover and Total Assets Turnover.

Inventory Turnover Ratio $= \frac{Cost\ of\ Goods\ Sold}{Average\ Inventory}$

Where, the cost of goods sold means sales minus gross profit. 'Average Inventory' refers to simple average of opening and closing inventory. The inventory turnover ratio tells the efficiency of inventory management. Higher the ratio, more the efficient of inventory management.

Debters' Turnover Ratio $= \frac{Net\ Credit\ Sales}{Average\ Accounts\ Receivable\ (Debtors)}$

The ratio shows how many times accounts receivable (debtors) turn over during the year. If the figure for net credit sales is not available, then net sales figure is to be used. Higher the debtors turnover, the greater the efficiency of credit management.

$$\text{Average Collection Period} = \frac{\textit{Average Debtors}}{\textit{Average Daily Credit Sales}}$$

Average Collection Period represents the number of days' worth credit sales that is locked in debtors (accounts receivable).

Please note that the *Average Collection Period* and the *Accounts Receivable (Debtors) Turnover* are related as follows:

$$\text{Average Collection Period} = \frac{\textit{365 Days}}{\textit{Debtors Turnover}}$$

Fixed Assets turnover ratio measures sales per rupee of investment in fixed assets. In other words, how efficiently fixed assets are employed. Higher ratio is preferred. It is calculated as follows:

$$\text{Fixed Assets turnover ratio} = \frac{\textit{Net Sales}}{\textit{Net Fixed Assets}}$$

Total Assets turnover ratio measures how efficiently all types of assets are employed.

$$\text{Total Assets turnover ratio} = \frac{\textit{Net Sales}}{\textit{Average Total Assets}}$$

(II) Leverage/Capital structure Ratios:

Long term financial strength or soundness of a firm is measured in terms of its ability to pay interest regularly or repay principal on due dates or at the time of maturity. Such long term solvency of a firm can be judged by using leverage or capital structure ratios. Broadly there are two sets of ratios: First, the ratios based on the relationship between borrowed funds and owner's capital which are computed from the balance sheet. Some such ratios are: Debt to Equity and Debt to Asset ratios. The second set of ratios which are calculated from Profit and Loss Account are: The interest coverage ratio and debt service coverage ratio are coverage ratio to leverage risk.

(i) Debt-Equity Ratio reflects relative contributions of creditors and owners to finance the business.

$$\text{Debt-Equity Ratio} = \frac{\textit{Total Debt}}{\textit{Total Equity}}$$

The desirable/ideal proportion of the two components (high or low ratio) varies from industry to industry.

(ii) Debt-Asset Ratio: Total debt comprises of long term debt plus current liabilities. The total assets comprise of permanent capital plus current liabilities.

$$\text{Debt-Asset Ratio} = \frac{\textit{Total Debt}}{\textit{Total Assets}}$$

The second set or the coverage ratios measure the relationship between proceeds from the operations of the firm and the claims of outsiders.

(iii) Interest Coverage Ratio = $\frac{\textit{Earnings Before Interest and Taxes}}{\textit{Interest}}$

Higher the interest coverage ratio better is the firm's ability to meet its interest burden. The lenders use this ratio to assess debt servicing capacity of a firm.

(iv) Debt Service Coverage Ratio (DSCR) is a more comprehensive and apt to compute debt service capacity of a firm. Financial institutions calculate the average DSCR for the period during which the term loan for the project is repayable. The Debt Service Coverage Ratio is defined as follows:

$$\frac{\textit{Profit after tax + Depreciation + Other Non cash Expenditure + Interest on term loan}}{\textit{Interest on Term Loan + Repayment of term loan}}$$

(III) Profitability Ratios:

Profitability and operating/management efficiency of a firm is judged mainly by the following profitability ratios:

(i) Gross Profit Ratio (%) = $\frac{\textit{Gross Profit}}{\textit{Net Sales}} * 100$

(ii) Net Profit Ratio (%) = $\frac{\textit{Net Profit}}{\textit{Net Sales}} * 100$

Some of the profitability ratios related to investments are:

(iii) Return on Total Assets = $\frac{\textit{Profit Before Interest and Tax}}{\textit{Fixed Assets + Current Assets}}$

(iv) Return on Capital Employed = $\frac{\textit{Net Profit after Tax}}{\textit{Total Capital Employed}}$

(Here, Total Capital Employed = Total Fixed Assets + Current Assets -Current Liabilities)

(v) Return on Shareholders' Equity = $\frac{\textit{Net Profit after Tax}}{\textit{Average Total Shareholders Equity or Net Worth}}$

(Net worth includes Shareholders' equity capital plus reserves and surplus)

A common (equity) shareholder has only a residual claim on profits and assets of a firm, i.e., only after claims of creditors and preference shareholders are fully met, the equity shareholders receive a distribution of profits or assets on liquidation. A measure of his well being is reflected by return on equity. There are several other measures to calculate return on shareholders' equity of which the following are the stock market related ratios:

(i) Earnings Per Share (EPS): EPS measures the profit available to the equity shareholders per share, that is, the amount that they can get on every share held. It is calculated by dividing the profits available to the shareholders by number of outstanding shares. The profits available to the ordinary shareholders are arrived at as net profits after taxes minus preference dividend.

It indicates the value of equity in the market.

EPS = $\frac{\textit{Net Profit Available to the Shareholder}}{\textit{Number of Ordinary Shares Outstanding}}$

(ii) Price-Earnings Ratios = P/E Ratio = $\frac{\textit{Marketer ice per Share}}{\textit{EPS}}$

Illustration:

Balance Sheet of ABC Co. Ltd. as on March 31, 2005

(Rs. in Crore)

Liabilities	Amount	Assets	Amount	
Share Capital (1,00,00,000 equity shares of Rs.10 each)	16.00	Fixed Assets (net)		60.00
Reserves & Surplus	22.00	Current Assets:		23.40
Secured Loans	21.00	Cash & Bank	0.20	
Unsecured Loans	25.00	Debtors	11.80	
Current Liabilities & Provisions	16.00	Inventories	10.60	
		Pre-paid expenses	0.80	
		Investments		16.60
Total	**100**	**Total**		**100**

Profit & Loss Account of ABC Co. Ltd. for the year ending on March 31, 2005:

Particulars	Amount	Particulars	Amount
Opening Stock	13.00	Sales (net)	105.00
Purchases	69.00	Closing Stock	15.00
Wages and Salaries	12.00		
Other Mfg. Expenses	10.00		
Gross Profit	16.00		
Total	**120.00**	**Total**	**120.00**
Administrative and Personnel Expenses	1.50	Gross Profit	16.00
Selling and Distribution Expenses	2.00		
Depreciation	2.50		
Interest	1.00		
Net Profit	9.00		
Total	**16.00**	**Total**	**16.00**
Income Tax	4.00	Net Profit	9.00
Equity Dividend	3.00		
Retained Earning	2.00		
Total	**9.00**	**Total**	**9.00**

Market price per equity share = Rs. 20.00

Current Ratio = Current Assets / Current Liabilities
= 23.40/16.00 = 1.46

Quick Ratio = Quick Assets / Current Liabilities
= Current Assets-(inventory + prepaid expenses)/Current Liabilities
= [23.40-(10.60+0.8)]/16.00 = 12.00/16.00 = 0.75

Inventory Turnover Ratio = Cost of goods sold/Average Inventory
= (Net Sales-Gross Profit)/ [(opening stock+ closing stock)/2]
= (105-16)/ [(15+13)/2] = 89/14 = 6.36

Debtors Turnover Ratio = Net Sales/ Average account receivables (Debtors)
= 105/11.80 =8.8983

Average Collection Period = 365 days / Debtors turnover
= 365 days/8.8983 = 41 days

Fixed Assets Turnover Ratio = Net Sales / Net Fixed Assets
= 105/60 = 1.75

Debt to Equity Ratio = Debt/ Equity
= (21.00+25.00)/ (16.00+22.00) = 46/38 = 1.21

Gross Profit Ratio = Gross Profit/Net Sales
= 16.00/105.00 = 0.15238 or 15.24%

Net Profit Ratio = Net Profit / Net Sales
= 9/105.00 = 0.0857 or 8.57 %

Return on Shareholders' Equity = Net Profit after tax/Net worth
= 5.00/(16.00+22.00) =0.13157 or 13.16%

Abbreviations:

- NSE- National Stock Exchange of India Ltd.
- SEBI - Securities Exchange Board of India
- NCFM - NSE's Certification in Financial Markets
- NSDL - National Securities Depository Limited
- CSDL - Central Depository Services (India) Limited
- NCDEX - National Commodity and Derivatives Exchange Ltd.
- NSCCL - National Securities Clearing Corporation Ltd.
- FMC - Forward Markets Commission
- NYSE- New York Stock Exchange
- AMEX - American Stock Exchange
- OTC- Over-the-Counter Market
- LM - Lead Manager
- IPO- Initial Public Offer
- DP - Depository Participant
- DRF - Demat Request Form
- RRF - Remat Request Form
- NAV - Net Asset Value
- EPS - Earnings Per Share
- DSCR - Debt Service Coverage Ratio
- S&P - Standard & Poor
- IISL - India Index Services &. Products Ltd
- CRISIL- Credit Rating Information Services of India Limited
- CARE - Credit Analysis & Research Limited
- ICRA - Investment Information and Credit Rating Agency of India
- ISC - Investor Service Cell IPF - Investor Protection Fund
- SCRA - Securities Contract (Regulation) Act
- SCRR - Securities Contract (Regulation) Rules

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